## LOGISTICS MATURITY EVALUATOR

#### REPORT IR509R1 · APRIL 2006

JAMES H. REAY
A. JEFFREY COLAIANNI
EVELYN F. HARLESTON
AMY MALETIC
JOHN G. MARCUS



The views, opinions, and findings contained in this report are those of LMI and should not be construed as an official agency position, policy, or decision, unless so designated by other official documentation.

# LMĨ

# Logistics Maturity Evaluator IR509R1/APRIL 2006

## **Executive Summary**

To operate effectively, federal civil agencies should continuously develop new, more integrated logistics systems to acquire, maintain, and deliver needed equipment, materials, and infrastructures that are optimized in terms of investment and benefits. Agency managers generally recognize that existing logistics systems are not as effective or efficient as they could be; however, there is no available benchmark to readily assess current systems without significant investment. The challenge is to reduce the costs of operations and support, increase workforce productivity, reduce costs of managing inventory, and increase the effectiveness of delivering support material and services. To achieve these objectives, the logistics systems of each agency should be evaluated to determine how well operations are being supported, whether meaningful improvement initiatives are planned or in place, and what the end cost will be.

LMI wishes to help government logistics managers determine the current state of their logistics processes, prioritize resource application, and identify future direction. To do so, we embarked on a research effort to develop a logistics maturity evaluator (LME). By accomplishing this independent research and development task, we hope to develop LMI's analytical capability to provide a structured highlevel assessment of federal agencies' logistics status, progress, and proficiency and help agency managers target areas for improving performance and reducing support costs.

The LME borrows heavily from the capability maturity model concept being applied in many organizations to meet management's need for an unbiased assessment tool. Our intention is to develop a repeatable system that gives logistics managers an objective comparison of the present status of their agencies' business processes and technologies for delivering goods and services.

We completed the first of two phases for this research task. The set of characteristics and evaluation criteria we developed can be used as a standard against which managers can measure an agency's logistics system.

By applying the LME to logistics organizations, government managers will be able to

- determine the current level of their logistics processes in terms of modernization and implementation of improvements and technologies;
- identify additional process improvements that may be applicable to their organizations; and,
- based on the collective experience of similar organizations, identify likely areas for focusing business process reengineering initiatives to maximize return on investment, with a reasonable expectation of successful implementation given the organization's current level of development.

For the purpose of assessing logistics maturity in government agencies, we developed five progressive maturity levels and identified the characteristics of related business practices within each level, as shown in Figure ES-1.

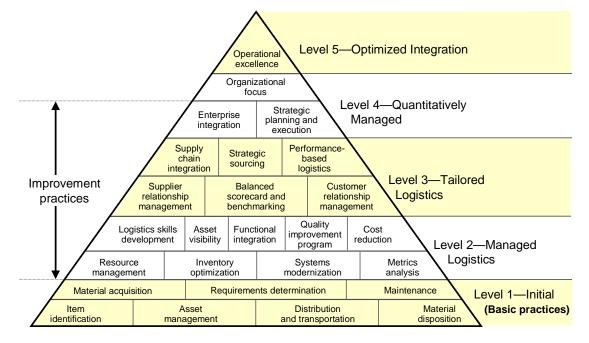


Figure ES-1. Logistics Maturity Pyramid

We can determine an agency's logistics maturity by asking key logistics personnel to complete an evaluation questionnaire. Once agency personnel complete the survey, individual scores are aggregated and summarized into an organizational score. The LME process produces graphical representation of the composite ranking of the target logistics organization on the level 1–5 maturity scale. Results are compiled and compared with other similar agencies or matched to a private sector counterpart. The final LME report to agency managers includes key conclusions and suggestions for next steps.

This report presents the results of our research in Phase I and the products included in the LME. In Phase II, we plan to test the LME capability with data obtained from selected government civil agency logistics managers and personnel.

# Contents

1-1
1-1
1-2
2-1
3-1
4-1
4-2
4-2
4-3
4-3
4-4
5-1
6-1
6-2
6-3
6-3
6-4
6-4
7-1
7-1
7-1

## Figures

Figure 1-1. Components of Logistics Maturity	1-1
Figure 2-1 Capability Maturity Model	2-2
Figure 2-2. Staged Versus Continuous Representation	2-3
Figure 3-1. Applying CMMI Concepts to Logistics Organizations	3-2
Figure 5-1. Logistics Maturity Pyramid	5-1
Figure 6-1. Sample Composite Ranking of Logistics Maturity	6-5

### Chapter 1

## Introduction to Logistics Maturity

By developing a logistics maturity evaluator (LME), LMI hopes to augment our analytical capability to provide a structured, high-level assessment of the logistics status, progress, and proficiency of federal agencies and to help agency managers identify areas for improving performance and reducing support costs. Our intention is to develop a repeatable procedure that allows logistics managers to objectively compare their organizations' business processes and technologies with a targeted, optimized, and integrated logistics operation. The comparison should help managers determine where to place emphasis and resources to achieve higher levels of customer service.

#### CHARACTERIZATION OF LOGISTICS MATURITY

There are two phases of our planned approach to the LME development task. In Phase I we developed a set of characteristics and evaluation criteria that can be used as a standard against which to measure an agency's logistics process infrastructure. As a first step, we identified the basic elements that characterize logistics maturity. These are shown in Figure 1-1.

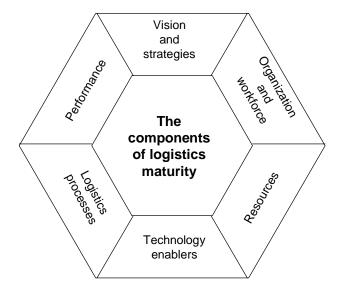


Figure 1-1. Components of Logistics Maturity

<sup>&</sup>lt;sup>1</sup> Our development work was influenced by the Software Capability Maturity Model (SW-CMM) concept developed by the Software Engineering Institute at Carnegie-Mellon University. The CMM is addressed in Chapter 2.

We then identified maturity levels, incorporating basic and improved logistics processes and business practices that—at the highest level of maturity—lead to the optimized integration of an organization's overall logistics system. To gather information regarding a logistics organization's current status, we developed an assessment questionnaire that would quantify the level of logistics maturity. Our questionnaire incorporates the basic components of logistics maturity. Details of this research are discussed in subsequent chapters.

In Phase II of the LME project, we will exercise the LME capability in live tests with selected government agency logistics managers and personnel.

#### VALUE OF ASSESSING LOGISTICS MATURITY

An organization's processes define how it works. They produce the desired results and provide the mechanism to incorporate knowledge, use capabilities, leverage resources, and ultimately do things better.

There is a common misconception that improved results are a certainty if an organization has really good people, access to advanced technology, and motivated, experienced managers. This notion is, at best, naive. Although people and technology are essential to achieving organizational objectives, process improvement is equally critical. Private sector organizations can ultimately look at profit-and-loss statements to measure success. Government activities do not have an equally objective measure of results or progress toward organizational goals. The pursuit of initiatives is often disjointed or fragmented; yet, government managers are continuously asked to assess progress, make improvements, and become more efficient and effective.

Unfortunately, process improvement initiatives in government activities are often ignored or even feared by the managers charged with achieving organizational goals and objectives. Such managers often focus on one aspect of improvement (such as workforce training or technology application) without seeing the integrating function accomplished by the organization's business processes. They equate the term "process" with bureaucracy, inertia, regimentation, and added up-front costs. Conversely, these managers—under pressure for results—sometimes initiate process change without a clear understanding of the associated process, technology, and workforce in attaining long-term direction or end-state goals.

In process-oriented areas like logistics, failure to begin with an integrated "big picture" view of functional elements inevitably leads to failed efforts and wasted resources. To help government logistics managers determine the current state of their logistics processes, prioritize resource application, and identify meaningful future direction, LMI embarked on this independent research effort to develop a logistics maturity evaluator. The LME borrows heavily on the capability maturity model concept applied by many organizations around the world to meet management's need for an assessment tool.

As part of the movement in government to make functional processes more efficient and effective, managers are often charged to analyze and adopt private-sector practices to rapidly improve and modernize key processes like logistics. Once national leaders in logistics management, government organizations have fallen behind in the last several decades in implementing innovative processes, methods, and enabling technologies. As costs escalate and agencies downsize, government organizations have lost the analytical capability and technical knowledge to effect large-scale improvements. Outsourcing of process improvement implementation and, more directly, modernization of automated systems is now the only option for government managers who seek significant process improvement. But these managers must first assess the current status and establish the organization's strategic direction before committing large-scale resources to any particular improvement path.

In the area of logistics, the private sector has already committed to substantial research, innovation, business process reengineering, and technology development and implementation. Many of these private-sector efforts have important application in the public sector, but government managers often are faced with too many "solutions," rather than too few. These managers will find the LME useful as they attempt to apply, leverage, and prioritize scarce process implementation resources so the maximum improvement is obtained for a finite level of investment.

Using the LME, managers can select appropriate process improvement tools and initiatives that have proven successful in both private sector and government applications and that are most applicable to their specific organizational needs.

Application of the LME to logistics organizations will allow government managers to achieve the following:

- With a modest analytical effort, determine the current level of their logistics processes in terms of process modernization and implementation of emerging improvements and technologies.
- ◆ Identify additional process improvement areas that may be applicable to their organization.
- ◆ Based on the collective experience of similar organizations, identify likely areas for business process reengineering initiatives to maximize return on investment, with a reasonable expectation of successful implementation given the organization's current level of development.

# Chapter 2 Capability Maturity Models

Improving the end results or attaining the prescribed goals has become an intrinsic objective of nearly every organization. When an enterprise wishes to improve results, it typically focuses on three factors: people, processes and methods, and technology. Processes and methods generally provide the capability to optimize available people and technology to improve output. Manufacturing industries have long recognized that improving processes is an important way of meeting business objectives. In service-oriented industries, such as logistics, process improvement is also accepted as a means to better results. Unfortunately, process change is difficult to define and implement because the desired objectives may be imprecise.

Government managers must move their agencies toward improved results in a structured manner, with well-defined steps and quantifiable targets. This approach permits more effective course adjustment and interim measurement of success. A meaningful plan of action and milestones is essential to an effective improvement plan; however, organizations often are not well-versed in the process of effective planning, and the home-grown action plan is often replete with false starts, non-essential milestones, and dead-end activities. One approach to avoiding these pit-falls is to learn from the mistakes of others and adopt courses of action that have been validated by previous efforts. Today, through the application of various automated process analysis tools, we can document, track, and assess process improvement activities in ways previously considered too cumbersome and overly resource intensive. One such technique is a capability maturity model (CMM).

What is a capability maturity model? Stated simply, it is a structured way to determine the levels or extent of an organization's process capabilities. Within the model, organizational progress is expressed in terms of the degree of maturity, that is, from ad hoc, immature processes to disciplined, mature processes with improved quality, efficiency, and effectiveness. The model describes an evolutionary improvement path that documents the organization's progress from one maturity level to the next higher level.

Current CMMs often use the convention of five maturity levels—from least mature (level 1) to most mature (level 5). These maturity levels are defined based on the competency achieved as an organization implements specific process improvements. For example, an organization may achieve maturity level 1 by automating

tasks that previously were accomplished manually. Higher levels of maturity are attained as the organization integrates processes across organizational lines.<sup>1</sup>

By recognizing and using the maturity level definitions built into the model, managers can more easily determine the degree of process improvement being achieved. CMM usually includes an increasing scale, as shown in Figure 2-1.

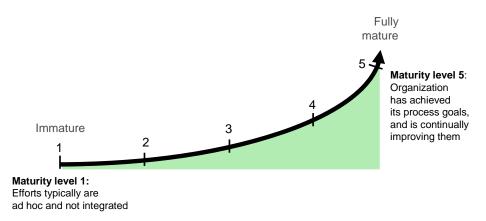


Figure 2-1 Capability Maturity Model

The first CMM model, Software CMM (SW-CMM), was developed in the early 1990s by the software community under the stewardship of the Carnegie-Mellon University's Software Engineering Institute (SEI). The Department of Defense funded this effort and continues as a principal participant in CMM development. Today, SEI retains oversight of CMM development efforts worldwide, acting as a central clearinghouse and model repository for CMM information, providing a standard approach for appraising proposed capability models, and conducting CMM training and seminars. SEI has also led the evolution of CMM to a broader scope by integrating capability maturity models across such disciplines as systems engineering, integrated product development, and acquisition. This effort to apply capability models across disciplines is called capability maturity model integration (CMMI).

There are two approaches to developing and using capability maturity models: staged representation and continuous representation. Either approach can help managers assess the level of maturity currently achieved in an organization or the level targeted for the future.

◆ Staged representation is a more holistic approach in which the CMM evaluation focuses on the level of maturity attained for the full range of processes for the organization. This approach is often used when management wishes to determine the maturity level of the entire organization for a given discipline. We incorporated the staged representation approach into the LME.

<sup>&</sup>lt;sup>1</sup> We describe specific maturity levels that we adopted for use in the LME in Chapter 4.

◆ Continuous representation measures maturity levels separately for individual processes within a discipline. In this case, management can focus on individual areas and apply priority attention to processes that may be problematic or are likely candidates for near-term improvement.

Regardless of which representation is used, the same basic evaluation criteria are applied to assess level of maturity. Figure 2-2 illustrates the two approaches to CMM representation.

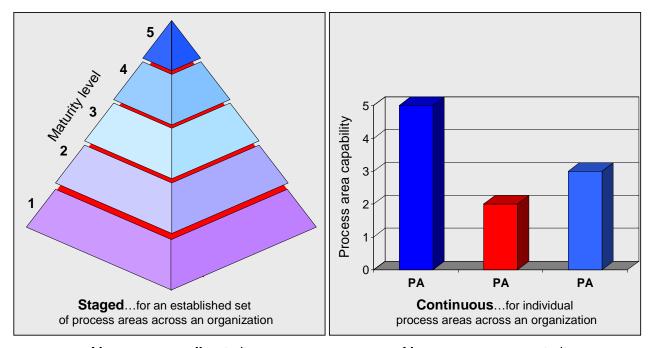


Figure 2-2. Staged Versus Continuous Representation

Measures overall maturity

Measures process maturity

Although the majority of CMM implementations are in the private sector, the concept has been applied to government activities. For example, the Federal Aviation Administration has instituted an extensive CMM program as a basis for business process reengineering across the agency. The Department of Defense developed an acquisition CMM for application to military weapons and equipment programs.

Our research indicates there is noteworthy similarity between target processes in the private sector and government activities. In later chapters, we focus on the potential for use of the CMM concept in the LME as a process evaluation and improvement tool particularly for federal civil agencies.

# Chapter 3 Applying CMM to Logistics

As described in Chapter 2, the concept and application of capability maturity models is well documented and a widely accepted analytical technique. Our research effort, therefore, focused on the application of the CMM method.

In this IR&D task, we addressed three specific analytical perspectives:

- ◆ The application of the CMM approach to the area of logistics
- ◆ The construction of a less-complex approach to CMM that would be attractive to federal government civil agency senior managers
- An assessment method tailored to government logistics organizations.

Our research identified a number of functional areas (in both the private and public sectors) in which CMM had been applied. By using the repository of information available on the Software Engineering Institute website, we were able to determine that no previous CMM efforts had focused on government logistics.

Our research also indicated that a CMM approach could be a useful tool for government managers to assess the level of development and status of their logistics organizations and processes. Use of CMM requires

- a well understood set of business functions or activities,
- accepted business process improvement practices that are recognized by functional managers as essential to achieving organizational objectives, and
- an acceptable, viable method for accomplishing maturity level assessment.

The members of our research team have extensive expertise in the full range of functions and activities that comprise the logistics process within government and the private sector. We were able to readily document the scope of logistics functions that should be incorporated into a logistics maturity evaluator.

Our team also had access to a wide body of reports, research papers, web-based documentation, and other sources, which permitted us to compile a comprehensive list of logistics-oriented business process improvement practices. We were able to include in our assessment tool a range of generally accepted improvement approaches that could help assess the maturity of an organization being evaluated.

<sup>&</sup>lt;sup>1</sup> SEI website is http://www.sei.cmu.edu/cmmi/.

Developing an acceptable way to assess maturity was the most difficult element of our research project. Although we began with a reasonably good knowledge of government logistics functions and generally accepted business improvement practices, it was not clear whether the CMM approach espoused by SEI and the documented CMM implementation guidelines<sup>2</sup> were applicable for most civil agency logistics organizations. The characteristics of a classic CMM assessment appeared to be unacceptable for many potential civil agency logistics clients. As an example, prior CMM efforts have been time consuming, manpower intensive, and expensive. As a result, agency managers may not be anxious to embark on a full CMM assessment. Therefore, our research challenge was to construct a logistics maturity evaluation approach that incorporated the essential elements and discipline of the CMM, but required only a limited resource commitment, which is more attractive to agency managers.

Further, a rigid application of existing CMM methodology requires substantial documentation of an organization's individual business processes with a high level of detail. Such effort may yield significant detailed information regarding the day-to-day functioning of organizational processes, but most government managers would rather obtain a more summarized assessment of their organization's maturity status—at least initially—in order to focus on an incremental and evolutionary process improvement initiative. Figure 3-1 presents the basic research steps we took to develop and accomplish a logistics maturity evaluation.

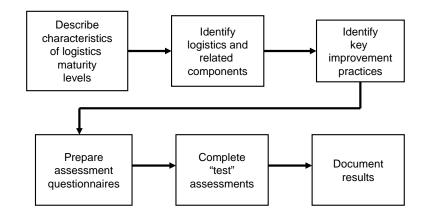


Figure 3-1. Applying CMMI Concepts to Logistics Organizations

The classic CMM method requires a periodic recertification of assessment results. Our research approach attempted to apply the basic CMM concept while providing a "snapshot" assessment and initial focus on a summary level of detail and assessment.

The remaining chapters of this report describe the research accomplished to complete the steps shown above.

<sup>&</sup>lt;sup>2</sup> Mary Beth, Chrissi et al., *CMMI: Guidelines for Process Integration and Product Improvement*, Addison-Wesley Publications, September 2004.

## Chapter 4

# Maturity Levels in Government Logistics

Based upon our research, we can identify six fundamental components of logistics maturity:

- Vision and strategy
- Organization and workforce
- ◆ Resources
- ◆ Technology enablers
- Logistics processes
- Performance.

We took logistics maturity to mean the capability of an agency to execute logistics practices in a manner satisfactory to its customers. It is not necessary for an agency to be the best in the world or even the best in its class (although that is always a desirable objective) to reach the summit of maturity. We are mindful that civil agencies, in particular, are routinely under tight personnel and funding constraints. It is impractical to expect them to be the leaders in the execution of modern logistics initiatives, but it is quite reasonable to expect them to adopt such initiatives and execute them well enough to meet the needs of their customers, notwithstanding their organizational constraints.

Logistics maturity within an agency begins with a clear vision and articulation of who the customers are and what they need in the way of support. Coincidental with the vision is a strategy to align available resources (people, processes, technology, and dollars) to meet that need. Next, the people in the workforce must be organized and given the training and leadership necessary to fulfill their responsibilities. The workforce also must have sufficient resources. The cliché, "doing more with less," is not a long-term strategy for success.

Finally, logistics maturity must consider availability and application of technology enablers, such as information systems and communication devices and networks that are sufficiently modern to do the job; logistics policies and processes that are documented, understood, and enforced; and metrics that give workers and managers alike a true picture of the outcome of their efforts.

For the purpose of assessing logistics maturity in government agencies, we developed the following descriptions of the five progressive maturity levels.

#### MATURITY LEVEL 1

A maturity level 1 organization typically operates on an ad hoc basis. The organization rarely provides a stable environment. Processes are performed, but not in accordance with set corporate goals and objectives. Success in these organizations often depends on the competence of people in the organization, and success cannot be repeated unless the same individuals are assigned to the next project.

At the initial level of logistics maturity, an organization will, at a minimum, accomplish seven basic practices:

- ◆ Material acquisition
- ◆ Requirements determination
- ♦ Maintenance
- ◆ Item identification
- Asset management
- Distribution and transportation
- Material disposition.

#### MATURITY LEVEL 2

At maturity level 2, an organization's logistics components are planned, documented, performed, monitored, and controlled at the project and process level. To advance to level 2 of logistics capability, which we call managed logistics, an agency would be expected to perform nine tasks competently:

- ◆ Logistics skills development
- Asset visibility
- ◆ Functional integration
- Quality improvement
- ◆ Cost reduction
- Resource management
- ◆ Inventory optimization
- Systems modernization
- Metrics analysis.

#### MATURITY LEVEL 3

At maturity level 3, logistics components are tailored from the organization's set of standard processes and related organizational assets to suit the circumstances in which they will be performed. At maturity level 3, processes are well characterized and understood, and are described in policies, standards, procedures, tools, and methods.

By level 3, tailored logistics, an agency practices the following:

- Supply chain integration
- ◆ Strategic sourcing
- Performance-based logistics
- ◆ Supplier relationship management
- Balanced scorecard and benchmarking
- Customer relationship management.

#### MATURITY LEVEL 4

Organizations that achieve maturity level 4 are managing logistics components using statistical and other quantitative techniques. Quantitative objectives for product quality, customer service quality, and process performance are established and used as management criteria. Product quality, service quality, and process performance are understood in statistical terms and are managed throughout the life of processes.

At level 4, an agency's organizational focus is on

- enterprise integration and
- strategic planning and execution.

## MATURITY LEVEL 5

At maturity level 5, an organization has achieved all of the goals of the preceding maturity levels. Logistics components are fully integrated and continually improved based upon the organization's understanding of the common causes of performance, cost, and customer satisfaction variations inherent in these logistics components. Level 5, optimized integration, is the target end state. Operational excellence is achieved at this highest maturity level. Of course, a lot of management attention, resources, and time must be expended to reach level 5.

Maintaining level 5 status over time is equally difficult. Customer needs are always changing, and logistics organizations must continually gauge what the requirements are and adjust their attention accordingly.

### Chapter 5

## Our Approach to a Logistics Maturity Evaluator

The basic functions in any logistics organization include material acquisition, requirements determination, maintenance, item identification, asset management, distribution and transportation, and material disposition. These functions form the base of the logistics maturity pyramid (level 1) shown in Figure 5-1.

Levels 2–5 are composed of improvement practices at increasing levels of difficulty, complexity, and potential benefit. An organization may perform some or all of the practices internally, or it may choose to serve as overseer and outsource the work to another government or private sector organization.

The core of the LME is a questionnaire that was developed to help government agency executives assess the maturity level of their logistics organization with a minimum initial investment of time and money. We can determine an agency's logistics maturity by asking key logistics personnel to complete the questionnaire. Survey participants must be thoroughly familiar with functions and practices within their organization.

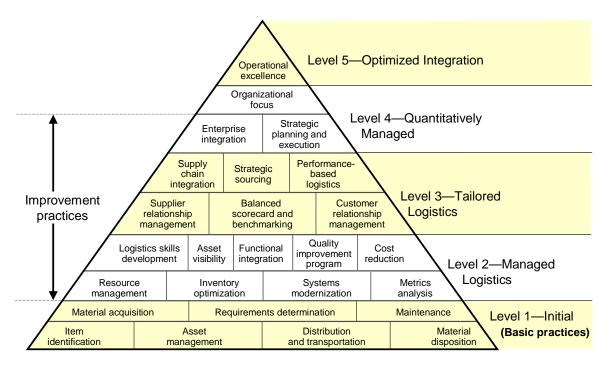


Figure 5-1. Logistics Maturity Pyramid

Logistics managers strive to move their organizations up the pyramid from basic functions (level 1) to optimized integration (level 5). This upward movement means passing through each set of improvement practices identified at levels 2–4 to reach level 5.

Each practice within a level must be performed to the satisfaction of the organization and its customers before upward movement can occur. Specific answers within the assessment questionnaire are gauged to determine this degree of satisfaction. This means an organization cannot jump from level 1 directly to level 3 simply because it is performing all of the level 1 functions as well as strategic sourcing at level 3. All the level 2 practices must be achieved effectively (e.g., logistics skills development, asset visibility) before moving on to level 3. However, our assessment approach does not require an organization to perform each practice within a level with the same degree of competency. For example, an organization may be exceedingly good at level 2 cost reduction and metrics analysis, but only satisfactory at quality improvement and systems modernization. Such an organization would meet the test of acceptability if each practice was being performed at least satisfactorily.

We assess an agency's logistics maturity by administering the evaluation questionnaire to key logistics personnel. Once agency personnel have completed the survey, individual scores are aggregated and summarized into an organizational score. The scoring system is constructed so that no maturity levels can be skipped. The acceptable score for one maturity level has to be attained before an organization can be rated at the next higher maturity level.

The research team developed a list of evaluation questions for the questionnaire, with five possible answers for each question. Both the questions and answer choices are weighted. The weight of each question is based upon the level of the logistics function within the logistics maturity pyramid. The levels are assigned weights of 1 to 5, with 5 being the highest level of maturity—or the greatest weight. The responses are similarly weighted with the most mature practices assigned a weight of 5.

An individual's response to a question receives a score equal to the question weight multiplied by the weight of the chosen answer. The scores are averaged for each pyramid function and practice area, then summed across pyramid areas for a final score for each logistics component. Scores are rounded down to the nearest whole number to determine the maturity level reached for each component.

The components of logistics maturity are given equal weight, but an organization cannot get credit for a maturity level unless the minimum level score is met for all components. This means the minimum level score reached across all components is the overall maturity level for the individual component.

As an example of the scoring process, one organization could be assessed at a 2.7 capability level with another organization assessed at a 2.1 level, yet both

organizations are considered to be at level 2. The higher numeric score does not entitle an organization to assume level 3 performance. The organization remains at level 2 until it attains a satisfactory score for all level 3 practice area requirements before moving up to that level.

Of course, organizations can institute process improvement initiatives at any time for functions within any maturity level. Under the LME assessment, however, these organizations would not be scored at the higher maturity level until all functions or practices at lower levels are scored as satisfactory. This means an organization cannot "leapfrog" to a higher level. Such action works to the detriment of the maturity assessment concept as it attempts to improve an organization's perceived score before the necessary infrastructure is in place to support widespread, permanent improvement.

Managers should understand that to attempt to advance prematurely to higher maturity levels jeopardizes the stability and effectiveness of existing improvements because the foundation for their successful institutionalization has not been completed. Our LME scoring is conservative because attempting to implement improvements without proper foundation may cause performance failure at the very point they are needed most—under stress.

## Chapter 6

# Maturity Model Assessment Questionnaire

One of the most difficult aspects of evaluating an organization's maturity status is devising an assessment approach that comprehends a meaningful scope of the process areas and includes understandable and quantifiable evaluation criteria at the same time it is easily used by a broad range of knowledgeable participants.

Under the classic CMM method, teams of analysts often work up and down the chain of command and operation to document, in great detail, the existing processes, methods, and technologies in place or planned for the organization. Although this approach can yield a very accurate and detailed description of the level of activity and progress in the organization, it has the disadvantage of being costly and time consuming. Further, such an analysis often becomes bogged down in the details of operations and initiatives, and may not produce sufficient "big picture" actionable information.

The details of an organization's existing and planned improvement efforts ultimately must be assessed to determine the level of success and identify course corrections when they are needed. There also is great value—particularly for senior managers—in knowing the overall status of the organization's processes and business process improvement initiatives. Such information is essential for evaluating potential improvement alternatives against generally recognized criteria and benchmarks, particularly as they are demonstrated in "world-class" organizations or activities. Having a formal, useful evaluation process reduces the subjective nature of the decisions and increases the probability of selecting business improvement solutions that meet the demands of organizational stakeholders and customers.

The core of the LME is the questionnaire that was developed to permit government executives to assess the maturity level of their logistics organization with minimal initial investment in time and resources. Building on the broad range of analytical research already accomplished by LMI personnel over the past several years, our LME team identified the basic subject matter that must be incorporated into the functional scope of the evaluation tool. This scope incorporates the functions, practices, and improvement areas included in the logistics maturity pyramid discussed in Chapter 5.

Our research challenge was to develop a mechanism that sufficiently differentiated a range of capabilities that characterized the distinctive level of maturity or improvement progress for each functional topic. At the same time, our evaluation tool had to be a "stand-alone" vehicle, requiring minimal explanation or description. To satisfy these requirements, the team developed a 173 question survey that

incorporated the 26 functional elements of our logistics maturity pyramid. The survey is multiple-choice, with five possible answers for each question. Answers range from A to E, with question "A" answers relating to the highest maturity level and "E" responses relating to the lowest level of maturity. Respondents are advised to answer questions truthfully and accurately for their organizational circumstances, and not try to outwit the system.

The following is a sample survey question. Agency participants in the LME survey choose the answer that best characterizes their organization.

Our agency's approach to reutilization of unneeded equipment and material assets is:

- A. Our agency has official rules and processes in place to ensure that material no longer required by the owning/using organization is offered for reuse to **all** other organizations within the agency.
- B. Our agency has official rules and processes in place to ensure that material no longer required by the owning/using organization is offered to **some** organizations within the agency.
- C. Our agency does not have official rules and processes but as a general practice the owning/using organization offers material no longer required to all other organizations within the agency.
- D. Our agency does not have official rules and processes but as a general practice the owning/using organization offers material no longer required to some organizations within the agency.
- E. Our agency has not issued material disposition guidance, either officially or unofficially.

## **EVALUATING THE LME ASSESSMENT RESULTS**

As described earlier, an LME assessment is equally useful in focusing management attention on specific process improvement target areas and assessing the overall maturity level across an organization's full range of logistics processes. By summarizing the results of the LME questionnaire, we can document for agency managers the status of awareness, priority, and implementation of a series of widely accepted process improvement initiatives across the full spectrum of common logistics functions. This documentation captures the collective knowledge and experience of the logistics practitioners within the organization being assessed.

To ensure a valid evaluation of an agency's logistics maturity level, the LME process follows a series of steps that foster full understanding of the process and a disciplined execution of the evaluation mechanism.

<sup>&</sup>lt;sup>1</sup> A copy of the full survey questionnaire is provided under Appendix A. The automated LME product is on the CD enclosed with this report.

#### **Preliminary Contact with Agency Personnel**

As part of the LME process, LMI personnel make initial contact with senior agency managers to explain the concept, process, and expected benefits of our logistics maturity evaluator. An initial briefing acquaints senior managers and other appropriate agency staff with the LME approach and elicits their feedback regarding the applicability and need for such an evaluation at that agency.

The agreement between LMI and agency management is formalized in a letter of understanding (LOU) that documents the relationship and responsibilities of the participating parties. Agency managers are then asked to complete a preliminary survey to help determine the basic profile of the logistics organization, resources, and processes. After evaluating this profile, LMI works with the agency to identify a number of key logisticians who represent the organization's most significant logistics activities (such as mission critical logistics providers or high dollar programs) to participate in the LME evaluation session. LMI personnel then meet with the potential recipients of the LME survey to make them aware of the purpose, required actions and how the LME results will be provided to the agency. Considerations such as nondisclosure, anonymity, confidentiality, and potential uses of the evaluation results are addressed.

#### Using the Questionnaire

Agency senior managers approve the application of the LME and identify personnel who will be tasked to respond to the LME assessment questionnaire. LMI personnel oversee the completion of the LME questionnaire, which can be administered at the agency worksite or at an LMI facility, depending on the preference of agency management.

The questionnaire is automated to facilitate both the entry of responses by agency personnel and the tabulation of scores. The LME tool actually is a system of databases. Responses are collected from participants, and the central database organizes the responses and aggregate results for different groups. The LME tool collects each participant's answers in a Microsoft Access database. Because the form opens automatically, the inner workings of the database are transparent to participants.

<sup>&</sup>lt;sup>2</sup> An example of this LOU is provided as Appendix B.

<sup>&</sup>lt;sup>3</sup> A copy of this initial survey is at Appendix C.

Each user follows a series of simple steps to complete the survey:

- Enter agency, department, and job title (for tracking purposes).
- ◆ Choose the appropriate answer for each question using the radio buttons labeled A through E. The questions are numbered and organized according to the logistics maturity pyramid.
- ◆ Navigate through the list of questions using the arrows at the bottom of the form.
- ◆ Click the "Survey Complete" button when finished.
- Click the stop sign button to exit the survey before all questions have been answered.
- Click the "Print Your Responses" button to print a report showing the questions and answers selected.
- ◆ Click "Exit LME" to exit the tool.

The responses are saved in a table within a separate database, and the scores are calculated.

#### Scoring

Once all questionnaires are completed, manually entered forms (if used) are transcribed into the automated system for tabulation. The results are then scored and summarized, as described in Chapter 5.

All responses to the LME questionnaire are compiled in a central database, which organizes responses from multiple individuals and reports results across and within groups (for example, agencies or departments). A table containing the scores from each questionnaire is then linked to this central database. Once the individual responses are averaged, reports and graphs can be displayed.

#### SUMMARY ASSESSMENT

After scoring is complete, the computed results are formatted into a report for presentation to agency officials. LMI compiles and analyzes survey responses to determine the status of improvement practices within the logistics components, quantify the organization's logistics maturity, and create an organizational logistics maturity evaluation profile. Results are compared to those of similar agencies or matched to private sector experience. The final report to agency managers includes summaries of responses by logistics practice and other groupings, key conclusions, and suggestions for next steps.

Consistent with the CMM concept discussed earlier, the LME process produces an overall figure that graphically represents the composite ranking of the target logistics organization on the maturity level 1–5 scale. Scores are compiled for each of the six components of logistics maturity and an overall maturity level assigned. As Figure 6-1 illustrates, agency management can easily see their total maturity level score and the corresponding highs and lows that affect their overall ranking.

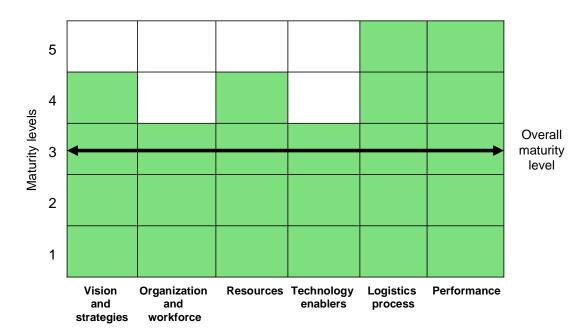


Figure 6-1. Sample Composite Ranking of Logistics Maturity

## Chapter 7

# Results of IR&D Project and Future Plans

#### **RESULTS**

The LME development team completed the initial phase of the research effort and produced a working version of a logistics maturity analytical assessment tool. The LME was developed for use by senior logistics managers in government agencies who desire an initial assessment of the status of their ongoing organic or contracted logistics support programs and initiatives.

As described earlier, the LME builds on the concept of the CMM developed by Software Engineering Institute of Carnegie-Mellon University. The LME is a streamlined version of the CMM approach; it uses a comprehensive questionnaire to obtain information from key logistics personnel in the government activity being assessed. This evaluation approach uses the inherent expertise of agency personnel to document the logistics maturity of the organization.

The assessment questionnaire was compiled based on the collective logistics experience and knowledge of the LMI development team. It covers the full spectrum of logistics functions and best practice initiatives from both government and the private sector. Questionnaire responses are weighted based on criteria developed for the project to determine the maturity level for each logistics area and the results are arrayed for the 26 areas characteristic of logistics organizations.

Selected agency personnel may complete the questionnaire using an automated system or hard copy. Results are then summarized and documented graphically for presentation to senior agency officials.

#### **FUTURE PLANS**

As we approached Phase II of our work—the application of the LME—we were encouraged in our informal conversations with several Department of Homeland Security (DHS) managers who indicated they would be interested in testing LME. The department's logistics operations consist of a patchwork of legacy processes and systems representing the 22 different federal organizations that were brought under the new DHS organization created by Congress in November 2002.

It is not surprising that the processes and systems of the 22 DHS organizations—which were developed independently—are not integrated. Although logistics has not been consistently defined at the departmental level, it is the commonly applied label for material management processes and systems throughout DHS.

Still, DHS has no consistent way of evaluating the overall logistics process components. As is true in a number of civil agencies, logistics is defined differently in each DHS organization, and some organizations do not have a separately structured logistics element, even though the agency, as a whole, has significant logistics responsibilities. The scope of logistics may vary from administrative support at headquarters level to major warehousing and repair activities. Therefore, it is often impossible for managers to know which areas require particular attention. Further, managers need to know which of the seemingly similar processes and systems are more advanced and capable than the others, and which should be revamped or retired and replaced.

The LME team is pursuing another opportunity to test the LME with the Federal Supply Service of the General Services Administration. This organization has numerous logistics improvement initiatives underway and appears to be a viable target for demonstrating the value of the LME as an assessment tool. The LME development team plans to continue to pursue opportunities to validate the tool in several target civil agencies.

# Appendix A Logistics Maturity Evaluator Survey

We developed a comprehensive LME questionnaire to help government executives assess the maturity of their logistics organization. The challenge was to develop a survey that sufficiently differentiated between the capabilities that characterize each level of maturity.

The resulting evaluation tool is a "stand-alone" vehicle, requiring minimal explanation or description. There are 173 questions that incorporate the 26 functional elements of our logistics maturity pyramid. Survey participants choose among five possible answers (A to E).

Respondents are advised to answer questions truthfully and accurately for their organizational circumstances, and not try to "outwit" the system.

Instructions: Please circle the letter that corresponds to the most appropriate choice for your organization.

Agency:		Department:	Job Title:
-	Our approach	Our approach to item identification is:	
	Pyramid Area:	Syramid Area: Item Identification	

A - We use a combination of commercial item identification data sources and the Federal Logistics Information System (FLIS) database as the source of item identification information.

⋖

B - We primarily use our end item acquisition or support contractors to provide item identification data.

ш

C - We have our own data base as a source of item identification information.

ပ Δ

- D We use commercial catalogs to identify the
  - items we need.
- E Our organization does not have a method to catalog items we use to conduct our mission responsibilities.
- Responsibility for cataloging items in our logistics processes rests with: 2

Item Identification Pyramid Area:

- A the Defense Logistics Information Service which provides cataloging and related services to our organization. ⋖
- B our central cataloging/item identification organization.

ш ပ Ω

- C each operating unit which is responsible for identification of the items it uses.
- D a commercial item cataloging company or service.
- E do not know.

### LMI Logistics Maturity Evaluator

Our organization is responsible for government-wide management of certain items based on:

Pyramid Area: Item Identification

- Integrated Material Management (IMM) responsibility for some items under the A - We are assigned management program. ⋖
- B We participate in the Integrated Material Management program, but are not assigned responsibility as IMM for any items. Ш
- C Items included in our logistics system have no other users than our Agency. Δ

ပ

D - Items in our logistics system may have other users, but we prefer to manage our own items for operational or security reasons.

E - We are not aware of the IMM program.

ш

For items in our logistics process that require technical data for re-procurement, maintenance or operating purposes, our approach to managing that data is:

Item Identification Pyramid Area:

- government activities to maintain automated technical data files for which we have A - We rely primarily on contractors or other ⋖
- B We maintain centralized automated technical data files for our own item information. Ш
- C Each operating unit in our Agency maintains its own technical data information in whatever form it requires. ပ
- D We maintain most technical data such as item descriptions or drawings in "hard-copy" paper files. Δ
- E We have no requirement for technical data

If logistics managers or other members of our organization have a need to identify an item, the approach might be:

Pyramid Area: Item Identification

- A Accessing an on-line data base containing item identification information.
  - B E-mailing, telephoning or otherwise contacting a cataloging or technical specialist.
- C Reviewing government or commercial

ပ

- cataloging paper documents.

  D Searching the Internet for information.
- E Asking a supervisor or co-worker for help.
- 6 The degree to which our item identification process is integrated with the maintenance planning and design engineering processes is best described by:

Pyramid Area: Item Identification

A-4

- A This process is fully implemented throughout the organization and understood within both maintenance and engineering groups.
- B The integration occurs in some but not all product lines; however, plans are ongoing to extend to the full operation.
- C There is very limited integration between maintenance planning and design engineering processes.

ပ

- D Our maintenance planning and design engineering processes are not integrated.
- E Does Not Apply to Our Organization

# LMI Logistics Maturity Evaluator

7 The following best describes how our item identification process relates end-use parts to mission essential equipment:

Pyramid Area: Item Identification

A - End-use parts are linked to mission essential equipment, the data is maintained, and the data is readily accessible to all users.

⋖

B - Many parts are linked to mission essential equipment, but does exclude items (such as common or low-cost) and may not always be accessible.

В

- C Only certain parts are linked, and the validity of the information is sometimes suspect.
- D There is no parts application program in this organization.
- E Does Not Apply to Our Organization
- Asset management is an expressed part of our enterprise strategic plan.

Pyramid Area: Asset Management

- A A Strongly Agree
- B Partially Agree
- C C Partially Disagree
- D Strongly Disagree
- E Does Not Apply to Our Organization

Overall asset management is the responsibility of:

Pyramid Area: Asset Management

- A The chief of logistics at the executive level
- B A full time asset manager at the executive level

М ပ Δ

- C The chief financial officer
- D A full time staff member at the middle management level
- E- Does not apply to our organization
- Are most major equipment assets managed by a program office? Asset Management Pyramid Area: 10
- program office that is fully staffed and integrated into the operation with authority A - Our major assets are managed by a over the management of the assets. ⋖

A-5

- B Our major assets are managed by a program office, but the office is without full staff or authority. ш
- C We coordinate effectively among our various offices and collectively perform the work of a program office.

ပ

- D We do not have a program office, nor do Δ
- E Does Not Apply to Our Organization

### LMI Logistics Maturity Evaluator

The following best describes the state of our asset management metrics:

Asset Management Pyramid Area:

- A Our organization has developed enterprisewide metrics addressing asset management and continuously reviews these metrics to identify improvements. ⋖
- B Our organization has some asset management metrics and plans to expand them to enterprise-wide measures of management effectiveness.

Ш

C -Our organization has some asset management metrics, but they do not represent how assets are managed.

O

- D We do not measure asset management. Δ
- E Does Not Apply to Our Organization ш
- Our organization's approach to the acquisition of major assets is: 12

Asset Management Pyramid Area:

- integrated logistics planning, and acquisition requirements forecast, investment review, A - An Agency- wide program includes ⋖
- B Agency- wide requirements forecast, investment review, and acquisition Ш
- C Agency- wide requirements are forecast

O

- and acquired for all organizations.
- D Each organization forecasts requirements and acquires needed

Δ

E - We send a purchase request to the procurement office

Are funding requirements for major assets reflected as line items in the annual budget?

Pyramid Area: Asset Management

A - Asset requirements are systematically developed, detailed in the annual budget, and available for senior management review.

⋖

B - Asset requirements are developed and submitted in an annual budget but not itemized or visible to senior management.

Ш

C - Our budgets describe our requirements but do not break out individual major asset categories.

ပ

categories.

D - We do not develop funding requirements for major assets in our annual budgets.

Δ

- E Does Not Apply to Our Organization
- 14 Our organization uses an asset management system that includes the following functionality or interfaces.

A-6

Pyramid Area: Asset Management

- A Acquisition, configuration management, maintenance, accountability, supply, human resources and finance.
- B Acquisition, maintenance, accountability, and finance.

М

C - Acquisition, accountability and finance.

ပ

- D Accountability and finance.
- E Financial Accountability only

### LMI Logistics Maturity Evaluator

15 Our organization has an enterprise wide material distribution and transportation plan

Pyramid Area: Distribution and Transportation

- A A Strongly Agree
- B Partially Agree
- C C Partially Disagree
- D Strongly Disagree

Δ

- E Does Not Apply to Our Organization
- 16 Our transportation system provides in-transit material asset visibility

Pyramid Area: Distribution and Transportation

A - Strongly Agree

**∀** B

- B Partially Agree
- C Partially Disagree
- D Strongly Disagree

E - Does Not Apply to Our Organization

The following best describes our distribution policy regarding placement of supplies and equipment:

Pyramid Area: Distribution and Transportation

requires keeping material inventories as close A - Our material distribution policy specifically to point-of-use as possible.

⋖

B - In practice, we position material inventory close to point-of-use whenever possible.

Ш

- C We do not have policy on this matter. ပ
- D We position material inventory wherever our warehouses are located.

۵

- E Does Not Apply to Our Organization
- 9

The following best describes where we receive supplies and equipment:

Distribution and Transportation

Pyramid Area:

- A Material receipts are routinely received at point of operational use. ⋖
- B High priority shipments are sometimes shipped directly to point of use.

Ш ပ

C - All material shipments are received at

central warehouse locations.

- D Our procurement officer(s) decides where to ship material coming from commercial Δ
- E Does Not Apply to Our Organization

### LMI Logistics Maturity Evaluator

The following best describes the way we resource distribution and transportation:

Pyramid Area: Distribution and Transportation

⋖

- link to our financial budgeting system, enabling us to identify if our budgets are properly sized to meet our requirements. requirements have an identifiable and direct A - Distribution and transportation
- requirements are rolled up into a generic account, which complicates our ability to identify if our budgets are properly sized to B - Distribution and transportation meet our requirements.

В

- requirements are rolled up into more than one generic account, which complicates our ability to identify if our budgets are properly sized to C - Distribution and transportation meet our requirements. ပ
- expenses for which our customers reimburse us; therefore these expenses do not have a D - Distribution and transportation are net impact on our budgets. Δ
- E Don't know. ш
- Our enterprise level metrics include transportation and distribution measures 20

Distribution and Transportation Pyramid Area:

- A Strongly Agree ⋖
- B Partially Agree В
- C Partially Disagree ပ

D - Strongly Disagree

Δ

ш

E - Don't know.

Our Agency's approach to reultilization of unneeded equipment and material assets is:

Pyramid Area: Material Disposition

- processes in place to ensure that materiel no longer required by the owning/using organization is offered for reuse to all other organizations within the Agency. A - Our Agency has official rules and ⋖
- processes in place to ensure that materiel no longer required by the owning/using organization is offered to some organizations within the Agency. B - Our Agency has official rules and

ш

and processes but as a general practice the owning/using organization offers materiel no longer required to all other organizations within the Agency. C - Our Agency does not have official rules

ပ

and processes but as a general practice the owning/using organization offers materiel no longer required to some organizations within D - Our Agency does not have official rules Ω

A-8

E - Our Agency has not issued materiel disposition guidance, either officially or unofficially.

ш

# LMI Logistics Maturity Evaluator

For purposes of equipment and material disposition, our organization:

Material Disposition Pyramid Area:

- knowledgeable about how to dispose of materiel in accordance with the Federal A - has a full-time staff trained and Property Management rules. ⋖
- accordance with the Federal Property Management rules but these personnel only work on disposition on an as-required basis. B - has a staff trained and knowledgeable about how to dispose of materiel in

Ш

- C relies on contractors to perform the full range of disposition actions (reutilization, donation, and surplus sales). O
- E does not have any materiel disposition disposition actions.

D - relies on contractors to perform some

Δ

- responsibilities. ш
- Our budget and program plan includes adequate personnel and funding to effectively and efficiently dispose of equipment and materiel: 23

Material Disposition Pyramid Area:

- A Strongly Agree ⋖
- B Partially Agree В
- C Partially Disagree O
- D Strongly Disagree Ω
- E Does Not Apply to Our Organization.

 Our organization's technology posture in materiel disposition can be best described as:

Pyramid Area: Material Disposition

⋖

- A Our Agency owns and operates our current state-of-the-art technology system, which enables us to effectively notify others within and outside the Agency or to be ourselves notified by others, within or outside, of the availability of excess and surplus materiel.
- B Our Agency owns and operates our current state-of-the-art technology system, which enables us to effectively notify others within the Agency or to be ourselves notified by others within the Agency of the availability of excess and surplus materiel.

ω

- C A support contractor owns and operates our current state-of-the-art technology system, which enables us to notify others within and outside the Agency or to be ourselves notified by others, within or outside, of the availability of excess and surplus materiel.
- D A support contractor owns and operates our current state-of-the-art technology system, which enables us to notify others within the Agency or to be ourselves notified by others within the Agency of the availability of excess and surplus materiel.
- E The automated system supporting our materiel disposition efforts is not current state-

## LMI Logistics Maturity Evaluator

The following best describes our organization's written procedures covering the disposal of unneeded materiel as required by the Federal Property Management rules published by the General Services Administration.

Pyramid Area: Material Disposition

A - Our official material disposal procedures are consistent with Federal Property Management rules and meet our organization's needs.

⋖

B - We generally meet Federal Property Management procedures.

**ш** О

- C We have our own material disposal procedures tailored to our unique requirements.
- D Each organization has its own material disposal procedures.
- E Does Not Apply to Our Organization
- 26 The following best describes materiel disposition in our organization:

Pyramid Area: Material Disposition

- A A We have materiel disposition performance standards that are current and generally well understood and rigorously monitored.
- B We have material disposition performance standards that are current and generally well understood but are not rigorously monitored.
- C We have materiel disposition performance standards that are not current or well

O

- understood.

  D We rely on contractors to meet agreed-to
- E E We do not have meaningful performance

performance standards.

 E - We do not have meaningful perfor standards.

Δ

27 Our Agency's vision for material acquisition is best described as:

Pyramid Area: Material Acquisition

- A Our Agency's vision is that materiel acquisition strategies and processes shall continually seek out and apply fresh and creative approaches in support of our customers.
- B Our Agency has not articulated a clear vision/strategy statement but it demonstrates though its actions that agility and resourcefulness in materiel acquisition is encouraged.
- C Our Agency works with the Office of Federal Procurement Policy and GSA's Federal Procurement Regulations staff to identify and minimize or remove red tape that hampers effective materiel acquisition.
- D Our Agency works collaboratively with suppliers to find innovative ways to acquire materiel within the context of existing federal procurement regulations.
- E Our Agency adheres strictly to traditional materiel acquisition processes within the context of existing federal procurement

# LMI Logistics Maturity Evaluator

3 Which best describes our organization's material acquisition program:

Pyramid Area: Material Acquisition

⋖

- A Our materiel acquisition workforce communicates and works effectively with our Agency's logistics staff and with our customers and suppliers.
- B Our materiel acquisition organization is not encumbered with management layering that impedes effective support.
  C Our materiel acquisition workforce

routinely works with the Agency's logistics staff

ပ

В

to address current critical issues.

- D Our materiel acquisition workforce is up-to-date in its training and knowledge of current procurement practices and emerging trends.
- E Our materiel acquisition workforce is basically a stand-alone operation that provides assistance when asked to but is not well integrated with the Agency's logistics staff and program.

The following best describes our material acquisition organization's budget and program plan regarding personnel and funding to effectively support the Agency's staff, customers, and suppliers material acquisition needs:

Material Acquisition Pyramid Area:

- A Our acquisition organization is fully staffed with funding authority sufficient to manage staff, customer, and supplier requirements. ⋖
- staff, customers, and suppliers, but lacks either sufficient funding or staff to effectively B - Our acquisition organization supports perform all functions. ш
- C Our acquisition organization can perform some of these functions but does not have the authority, personnel, or funding to support all.

ပ

D - We do not maintain a material acquisition

Δ

- - E Do not know

A-11

In our organization our electronic business relationships with commercial suppliers are characterized by: 30

Material Acquisition Pyramid Area:

- between our acquisition processes and private sector suppliers using commercially recognized information interchange standards. A - Establishment of e-business interchanges ⋖
  - B Established acquisition partnerships with

М

- selected suppliers including two-way data sharing.
- C Arms-length contracting with suppliers accomplished in accordance with Federal ပ
- D Material procurement using GSA federal Acquisition Regulations. Δ

supply schedules and government credit card

purchases.

E - Material procurement contracts arranged by postal mail, e-mail and by telephone. ш

# LMI Logistics Maturity Evaluator

Our organization's policy on administrative and production lead times is:

Material Acquisition Pyramid Area: A - We actively attempt to reduce these times in order to improve customer support and reduce costs.

⋖

provided by the contractors selling material B - We generally accept the lead times and services to our organization.

В

C - Projected lead times in our organization are based on past history data.

ပ

- D Our material acquisition system does not require us to use prior lead time information. Δ
- E We have no policy on lead times. ш
- Which statement best describes materiel acquisition 32

performance in your organization.

Material Acquisition Pyramid Area:

- A We have materiel acquisition performance standards that are current and generally well understood and rigorously monitored. ⋖
- B We have materiel acquisition performance standards that are current and generally well understood but are not rigorously monitored.

ш

- C We have materiel acquisition performance standards that are not current or well O
- D We rely on contractors to manage materiel acquisition performance standards. Δ
- E We do not have materiel acquisition

ш

performance standards.

The following best describes our process to aggregate requirements for common supplies and equipment that will be used throughout the organization:

Pyramid Area: Requirements Determination

A - All activities across our Agency regularly coordinate material and equipment requirements to ensure economy of scale acquisitions.

⋖

B - Our supply personnel compare information on acquisition of common items whenever possible.

ω

C - There is not sufficient information available to coordinate purchases of common items or equipment.

ပ

D - Each organization is responsible for acquiring its own supplies and equipment.

Δ

E - Does Not Apply to Our Organization

34 The following best describes the linkage between the tempo of operations and the funding for logistics:

A-12

Pyramid Area: Requirements Determination

- A A We relate logistics funding to operational activity as part of our planning, programming and budgeting.
  - and budgeting.

    B Our logistics people try to coordinate logistics funding with operational managers whenever possible.

Ш

- C Operations and logistics funding are different categories.
- D Operations and logistics requirements are not really directly related.
- E Does Not Apply to Our Organization

### LMI Logistics Maturity Evaluator

The following best describes how forecasted material requirements are related to the requirements actually incurred:

Pyramid Area: Requirements Determination

A - Our automated requirements process computer future material needs based on past actual demands for material.

⋖

B - Our material requirements managers factor in past needs when developing future material requirements.

В

C - We do not regularly track past material usage.

ပ

- D Our future material demands fluctuate to the point that past usage is meaningless.
- E Does Not Apply to Our Organization
- 36 Our logistics material requirements are projected and managed: Pyramid Area: Requirements Determination
- A A For 5 or more years
- B B 3 to 4 years
- C C Bi-annually
- D Annually
- E Monthly or less

The following best describes how our organization tracks the difference between projected logistics resource requirements that go into the budget and the funding actually received:

Requirements Determination Pyramid Area:

A - We track actual funding against projected need and adjust future requirements

⋖

B - Once actual funding is received, the projected funding needs are no longer relevant.

ш ပ Ω ш

C - Funding received becomes our requirement.

D - We do not compare projected funding against actual funding.

E - We do not track prior years projected funding.

When determining our annual logistics requirements, we develop projections based on 38

Requirements Determination Pyramid Area:

A-13

A - Operational profiles, major acquisitions, operations and maintenance, and ⋖

contingencies

B - Major acquisitions, operations and maintenance, and contingencies

ш ပ

C - Major acquisitions, operations and

D - One lump sum for logistics Δ

E - We have no logistics requirements.

### LMI Logistics Maturity Evaluator

Logistics resources projections are based on:

Pyramid Area: Requirements Determination

A - Zero-based requirements and forecast through criteria such as operational hours ⋖

B - Last year's expenditures plus a forecast of planned changes

М ပ

C - Last year's expenditures plus unsatisfied

requirements

D - Last year's budget plus inflation

Δ

E - We do not project material requirements. ш The following best describes how our Agency relates the state of equipment/material maintenance capabilities and the impact of maintenance support in planning Agency operations: 4

Maintenance Pyramid Area:

always a factor in planning major operations. A - Maintenance capabilities and support is ⋖

B - Maintenance capabilities and support is sometimes a factor in planning major Ш

C - Maintenance capabilities and support are dealt with after an operation is completed. operations.

ပ

D - Our operations are critical so we go with what we have. Δ

E - We have no maintenance capability. ш

In our organization, maintenance activities are organized under: Pyramid Area: Maintenance

A - A single logistics organization

B - The same organization that manages

М ပ

C - A separate Program Office for each type of equipment

D - No one -- maintenance activities are independent

Δ

E - We don't have any maintenance

organizations

The following best describes the accuracy and availability of maintenance cost information:

42

Maintenance Pyramid Area:

A - The cost of equipment and material maintenance is kept updated and accurate in automated data bases accessible to everyone with a need to know.

B - Maintenance costs are available in our maintenance data systems.

ш ပ

C - We keep hard-copy records of

D - We do not have records of maintenance

Δ

E - We do not have maintenance costs in our

### LMI Logistics Maturity Evaluator

The strategy that best characterizes our material/equipment maintenance philosophy is:

Pyramid Area: Maintenance

A - On-line sensor based maintenance

⋖ ш

B - Conditioned based maintenance

C - Scheduled preventive maintenance

ပ Δ

D - Maintenance as required

E - Run to failure ш The following best describes the availability of material/equipment maintenance actions status: 4

Maintenance Pyramid Area: A - Our automated systems provide timely status of maintenance actions to operational managers. ⋖

B - We have procedures to report maintenance status to appropriate managers by phone or e-mail. В

C - Operational managers have points of contact to inquire about maintenance status. ပ

D - Operational managers are not responsible for equipment maintenance. Δ

ш

E - Our organization does not accomplish material/equipment maintenance.

The following best describes how our organization handles deferred or unfunded material/equipment maintenance requirements:

Maintenance Pyramid Area:

A - Deferred maintenance requirements are tracked and reviewed by senior managers.

⋖ Ш ပ Δ

- B Deferred maintenance requirements are included in future maintenance budgets.
- C Such requirements are simply carried over
  - to the next year.

D - We do not track deferred maintenance

- E Does Not Apply to Our Organization requirements.
- Our material maintenance system(s) 46

Maintenance Pyramid Area:

- A Forecasts preventive maintenance, tracks corrective maintenance actions, and interfaces directly with the technical data, supply,
  - finance, and human resources systems.
- B Forecasts preventive maintenance, tracks corrective maintenance actions, relates repair parts to maintenance actions and tracks the work accomplished by individual technicians

ω

C - Tracks preventive and corrective maintenance actions, and relates repair parts

ပ

- D Records preventive and corrective maintenance actions Δ
- E Our system does not track maintenance

## LMI Logistics Maturity Evaluator

Funding resources for logistics activities are:

Pyramid Area: Resource Management

A - Budgeted and planned for, and managed separately from other activities

⋖ В ပ

- B Budgeted and planned for, but funding is
- subject to reallocation to non-logistics activities C - Imbedded (included, but not specifically identified) in program office budgets
- D Imbedded in unit-level operating budgets

Δ

E - Not separately identified

ш

For our organization, logistics resources are managed under: 48

Resource Management Pyramid Area:

- A Under applicable logistics offices in the organization ⋖
- B Within operations offices ш
- C By the applicable equipment program ပ
- D No one -- logistics activities are resourced independently Δ
- E We don't have any logistics resourced activities ш

The following best describes the role quantitative forecasting methods play in developing logistics budget requirements:

Pyramid Area: Resource Management

A - Our automated forecasting systems use standard forecasting models to project future budget requirements.

⋖

Ш

- B Our material managers have information tables that are based on forecasting models to quantify projected material budget requirements.
- C Our material regulations or procedures manuals describe our approach for material budget requirements forecasts.

ပ

D - Future material budget requirements are developed using prior year's figures plus

Ω

- E Do not know.
- The following best describes the staffing of logistics activities in our agency: 20

A-16

Resource Management Pyramid Area:

- A Logistics staffing requirements are one of the highest priorities in our organization. ⋖
  - B Logistics staffing requirements are about
    - equal with other important areas. Δ
- C Logistics staff are considered less of a priority than other staff requirements, such as operations. ပ
- D Logistics staffing is not separately identified in our organization. Δ
- E We have no staff members that are specifically logistics personnel. ш

## LMI Logistics Maturity Evaluator

Our Logistics IT System and Finance IT System(s)

Pyramid Area: Resource Management

A - Are integrated in the same system(s) with common data bases and integrated applications.

⋖

B - Are in separate, but highly integrated systems.

Ш ပ

- C Are in separate, somewhat connected systems.
- E Logistics and finance have no systems relationship. D - Are in separate, unintegrated systems. ш

Δ

The following best describes our logistics budgets:

25

Resource Management Pyramid Area:

- A Details of our logistics oriented budgets are readily identifiable and accessible in automated systems. ⋖
- B Logistics budget information can be obtained by manual review of our budget documents. В
- C Logistics budget data cannot be separated from other budget categories. ပ
- D There are no logistics elements in our annual budgets. Δ
- E Do not know ш

In our organization, logistics activities are:

Pyramid Area: Resource Management

A - Centrally managed and coordinated by a dedicated Headquarters element

B - Regionally managed and coordinated

ш ပ

C - Managed and coordinated by the applicable program office

E - Logistics is not managed separately from other functions.

D -The responsibility of the operating unit

Δ

In our organization, long-term sustainment of a new system or new piece of equipment is a major consideration in the acquisition process:

54

Resource Management Pyramid Area: A - Strongly Agree

B - Partially Agree ω

C - Partially Disagree

ပ

D - Strongly Disagree Ω

E - Does Not Apply to Our Organization

# LMI Logistics Maturity Evaluator

The following best describes our management strategy for logistics resource management:

Pyramid Area: Resource Management

A - Our annual strategic plan has a section on logistics strategy and we manage to these goals and objectives. ⋖

B - We have a documented logistics resource plan separate from our strategic planning documents.

В

C - We periodically set logistics objectives and try to resource their implementation.

ပ Δ

D - We apply logistics resources as needs

E - Logistics resource planning is not a specific part of our management strategy. ш

The following best describes how the long-term total cost of ownership is recorded and considered in life-cycle decisions: 26

Resource Management Pyramid Area: A - Our policy and practices mandate full consideration of total cost of ownership for major equipments and related support. ⋖

B - We try to consider life cycle support costs whenever possible.

ш ပ

C - We basically manage costs year-to-year.

D - Life cycle costs are just part of doing Δ

E - Aside from our budget expenditures, we don't track support costs. ш

Based on our strategic plan, our organization has afready or intends to implement a material stockage requirements process that relates inventory investment to customer driven performance objectives.

Pyramid Area: Inventory Optimization

- A A We have already implemented such a capability.
- B We plan to develop this capability in the

future.

ပ

- C Our current requirements methodology based on customer demands is adequate for Agency needs
- D. Our inventory requirements do not need such a sophisticated approach.

۵

- E Don't Know.
- 58 I would characterize our process for computing material inventory requirements as follows:

A-18

Pyramid Area: Inventory Optimization

- A The process is highly accurate in projecting our future material needs.
- B The process is adequate, but does not consistently forecast future material requirements accurately.

ш

C - Our material requirements computation methods are substantially outdated.

0 0

- D Our material requirements are so volatile it is nearly impossible to obtain correct forecasts of future needs
- E We acquire material inventory as needed, so requirements forecasts are generally

ш

unnecessary.

### LMI Logistics Maturity Evaluator

Our organization's approach to quantifying material inventory requirements is:

Pyramid Area: Inventory Optimization

- A Such requirements are developed using a model that computes the full range of material requirements across our Agency regardless of organizational levels.
- B Each organization within our Agency uses a standard approach or model that computes material requirements based on that organization's unique needs.

Ш

- C Agency policy permits each major organization to develop its own approach to material requirements computation.

   D Each organization develops future year material requirements based on prior year's
- E Not sure who develops our inventory requirements.

ш

60 The following best describes the methods used by our organization to compute material requirements:

Pyramid Area: Inventory Optimization

- A A Most material requirements are based on achieving a combination of end item or organizational readiness or performance-based inventory objectives.
- B. We use a combination of inventory stockage computations including performance-based objectives, past demands and special/unplanned requirements calculations.
- C Most of our inventory requirements computations are based on past recorded material demands
- D We develop inventory requirements using factors based on prior years' material needs.
- E E We project inventory needs based on total available funding.

We physically position material inventories based on:

Pyramid Area: Inventory Optimization

- A A computational model that selects locations that support best service to the most customers.
- B A mix of wholesale (central) and retail (using organization) locations.
- C Location of our central warehouse facilities.
- Other organizations or contractors hold our material inventory.

Ω

- E Wherever we have sufficient storage space.
- 62 Our approach to budgeting for acquisition of material inventories

Pyramid Area: Inventory Optimization

- A A We have or plan to implement a process to develop material inventory budget requirements based on contribution to organizational performance targets.
- B Each organization's inventory budget requirements are based on past material sales or demands plus known change factors.

ш

C - Inventory material budgets are based on last year's requirement plus inflation.

ပ

- D Material inventory budgets are a percentage of the value of our end item
- E Each organization has its own way of developing material budgets.

### LMI Logistics Maturity Evaluator

13 I would characterize our inventory support performance as follows:

Pyramid Area: Inventory Optimization

- A Customer requirements for inventory are nearly always met on time, in the proper quantities and at the right cost.
- B Customer inventory requirements are generally satisfied, but we seem to have substantial levels of backordered material and/or late deliveries.

В

C - Customer confidence in our logistics process could be significantly improved.

ပ

- D We don't measure customer satisfaction with inventory support.
- E Inventory support is not our organization's responsibility.

ш

64 In our organization, inventory (i.e. repair parts, operational supplies) distribution is:

Pyramid Area: Inventory Optimization

- A A Centrally managed and coordinated
- B Regionally managed and coordinated
- C Managed and coordinated by the applicable program office
- D Left to the operating unit
- E We don't have inventory

The following best describes our systems modernization program:

Systems Modernization Pyramid Area: A - We have a formal systems modernization program that covers most key Agency functions.

⋖

B - Each operating unit is responsible for its

Ш ပ

- C We have hired a contractor to help us with systems modernization.
- D There are no resources available for modernizing our systems. Δ
- E Our systems don't need further modernization.
- The following describes our agency posture on systems modernization: 99

Systems Modernization Pyramid Area:

- A We have a systems modernization initiative that will provide needed functional improvements over several years.
- modernization program that is incrementally funded over several years. B - We have a long-term systems

ш

C - Systems modernization takes place continuously as we identify needed improvements.

ပ

- D Systems modernization is needed continuously to upgrade computers and communications. Δ
- E Systems modernization just takes a long ш

## LMI Logistics Maturity Evaluator

I believe our organization has implemented an acceptable level of technology

Pyramid Area: Systems Modernization

A - Strongly Agree

⋖ Ш ပ

- B Partially Agree
- C Partially Disagree
- D Strongly Disagree

Δ

- E Does Not Apply to Our Organization ш
- The following best describes the awareness and training aspect of our systems modernization program: 89

Systems Modernization Pyramid Area:

- A Our systems modernization efforts always include improvement of staff competency through concurrent formal training. ⋖
- B We normally receive sufficient on-the-job training as systems are modernized В
- C Our training programs are usually separate from systems modernization efforts. ပ
- D Our staff learns by doing. Δ
- E We don't have a formal training program related to logistics modernization. ш

Our Agency's logistics systems modernization program can be characterized as:

Pyramid Area: Systems Modernization

- A Highly supportive of the Agency mission and performance objectives.
- B Focusing on facilitating business process

ω

C - Generally keeping up with state-of-the-art technology.

ပ Ω

- D Generally ineffective in supporting functional process improvement.
- E A waste of time and money.
- Performance and Cost Measurements in our Agency: 20

Metrics Analysis Pyramid Area: A - Are rolled up to capture Agency level performance ⋖

- М
- B Consider agency-level performance, but not in an integrated fashion
- C Integrate a number of low level measures to indicate performance at intermediate organizational levels

ပ

- D Are generally limited to tracking individual low-level activities Δ
- E Formal measurements are not part of our Agnecy's management.

## LMI Logistics Maturity Evaluator

Our measures are widely known, understood and accepted at all levels of the organization.

Pyramid Area: Metrics Analysis

A - Strongly Agree

⋖ Δ

B - Partially Agree

C - Partially Disagree ပ D - Strongly Disagree

Δ

E - Does Not Apply to Our Organization

ш

The following best describes our logistics system performance measures: 72

Metrics Analysis Pyramid Area:

- A Our performance measures are almost all quantifiable, are tracked on a regualr basis, and used by appropriate managers. ⋖
- B Most performance measures are quantified В
- C We collect data regarding our performance measures if it is available. ပ
- D Our performance measures tend to be subjective, i.e., not quantifiable. Δ
- E We generally don't measure performance. ш

'3 The measures we use generally consider performance or cost effectiveness rather than just throughput volume or workload.

Pyramid Area: Metrics Analysis

A - Strongly Agree

**∀** B

B - Partially Agree

C C - Partially Disagree

D - Strongly Disagree

Ω

E - Do not know

The following best describes the relationship between logistics performance measures and funding in our organization:

74

Pyramid Area: Metrics Analysis

A A - Performance measures are a key element of our strategic and resourcing planning

system.

B - We include status of performance measures in our program and budget submissions.

ш

C - We seem to receive additional resources if our performance improves.

О П

 D - We seem to receive additional resources if our performance gets worse.

E - Performance and funding are not really related in our organization.

#### LMI Logistics Maturity Evaluator

5 The following best describes the relationship between logistics performance measures and our agency's goals and objectives:

Pyramid Area: Metrics Analysis

⋖

A - Our organization goals and objective each have closely related, quantitative performance measures as required by the Government Performance and Results Act (GPRA).

B - We have goals and objectives with related performance measures.

В

C - We track our performance against

ပ

quantifiable target objectives.

D - Organizational goals and ojectives have not been related to specific measures.

E E - We don't have formal, documented goals and objectives.

76 Our organization has an official written plan that mandates classroom, distance learning, and/or on-the-job training on Agency logistics policies and processes.

Pyramid Area: Logistics Skills Development

A - Strongly Agree

⋖

B - Partially Agree

D - Strongly Disagree

C - Partially Disagree

ပ

E - Do not know

77 For our organization, logistics skills development generally relies on:

Pyramid Area: Logistics Skills Development

- A Management-required, cross cutting training (classroom/distance learning/OJT, either singly or combined) to qualify a person in two or more logistics areas across the supply chain.
- B Employer-required classroom and/or distance learning training focused primarily on a specific logistics function (such as acquisition, asset management, maintenance, transportation).

ш

C - Employer-required on-the-job training focused primarily on a specific logistics function.

ပ

- D Employee-initiated optional training related to improving one's specific or general logistics
- E We do not have an active logistics skills development program.

78 Our budget and program plan includes adequate funding to develop and maintain the logistics skills of our employees:

Logistics Skills Development

Pyramid Area:

- A A Strongly Agree
- B Partially Agree
- C Partially Disagree

0 0

- D Strongly Disagree
- E Does Not Apply to Our Organization.

### LMI Logistics Maturity Evaluator

9 The following best describes the technology-related logistic skill development in our organization:

Pyramid Area: Logistics Skills Development

- A We have implemented today's electronic commerce and supply chain business environment (using tools such as GSA's Advantage program or commercial electronic ordering applications).
- B We understand and are using technology insertion strategies to reengineer our business processes.

В

- C We are training our workforce to consider enterprise resource planning (ERP) concepts and solutions.

   D We have or are planning to hire contractor.
  - experts to develop our technology skills..

    E We plan little or no technology-related logistics skills development.
- Our organization believes it is critical to have a better trained, multi-skilled, and empowered workforce to take full advantage of important processes such as using best commercial and government practices, applying business case analysis (BCA)

80

Pyramid Area: Logistics Skills Development

- A A Strongly Agree

B - Partially Agree

В

- C Partially Disagree
- D Strongly Disagree
- E Do not know

The following best describes logistics skills development in our organization:

Logistics Skills Development Pyramid Area:

- transforming how we develop or maintain the logistics skills of our workforce so that we can effectively operate in the modern business environment. A - We are actively reengineering or ⋖
- technical specialist logistics workforce to one that is preponderantly composed of multi-B - We are moving away from a functional or skilled generalists.

ш

C - We have been or are being trained in new directions and programs such as performance-based work agreements (with government partners) or contracts (with commercial firms).

ပ

D - We have been or are being trained in specific areas such as total life cycle ownership costs of projects or programs.

Δ

traditional ways we develop our logistics E - We have not made changes to the workforce.

ш

In our organization, logistics personnel: 82

Logistics Skills Development Pyramid Area:

- A Are career logistics professionals ⋖
- significant experience and training to provide B - Are specialists in other fields, but have them the expertise necessary

Ш

C - Are in the logistics field as a prerequisite to entering a more desirable field.

ပ Ω

- D Are temporarily in the logistics field until some other opportunity comes along.
- E We don't have logistics personnel

### LMI Logistics Maturity Evaluator

For our organization, asset visibility means:

Pyramid Area: Asset Visibility

⋖

- A An integrated approach that uses knowledge of asset location and movement to improve support to our customers.
- B An approach to using technology, financial records, and business processes to allow timely insight into the location, identity, and movement of inventory and equipment. Ш
- C A methodology to combine technology and business processes to track asset location and movement ပ
- D Technology that is in place to monitor the location of assets. ш

Δ

E - We do not use that term in our organization.

The following best describes our agency's posture on asset visibility: 84

Asset Visibility Pyramid Area: A - Our strategic plan inculdes specific goals, objectives, and milestones for implementing ⋖

full material asset visibility.

- B Our strategic plan mentions the need for material asset visibility. ш
- C We have an ongoing initative to achieve greater material asset visibility. O
- D No additional planning is needed in the area of asset visibility. ۵
- E We have not identified an asset bisibility ш
  - requirement

Asset visibility is included in our organization's logistics training in the following manner:

Pyramid Area: Asset Visibility

A - Most principal managers and key employees have received some formalized asset visibility training.

⋖

B - Our organization has initiated or plans to provide formalized asset visibility training to executives and employees.

М

familiarize themselves with asset visibility C - Managers and employees need to

ပ

D - Employees receive basic training on the technology used for asset visibility. concepts, practices, and technology.

Δ

E - Asset visibility training is not required in our organization.

The following best describes how our agency uses asset visibility in determining overall material budget requirements for acquisition and management: 86

A-25

Asset Visibility Pyramid Area:

- A We have full visibility of material assets in our requirements and budgeting process and use this information to compute funding ⋖
- B Our budgeting process takes available assets into account in determining future requirements. മ
  - necessarily use this information in our C - We have asset visibility but do not budgeting process. ပ
- D We do not have asset visibility information available in our automated systems. Δ
- E Each individual organizational component is responsible for its own usse of asset information.

### LMI Logistics Maturity Evaluator

The following best describes how IT Technology solutions that enable asset visibility, such as RFID and bar codes, are implemented as part of our overall process improvement strategy:

Asset Visibility Pyramid Area: A - We have major initiatives underway to use technology enablers to improve our visibility of material assets.

⋖

- B We plan to use asset visibility technologies in the future. Ш
- C We are not certain we need new technologies in this area.

ပ

- really require significant new techonology D - Our asset visibility requirements don't Δ
- E We have no asset visibility requirement. ш
- Our organization's asset visibility technology consists of: 88

Asset Visibility Pyramid Area:

- A Real-time, active identification and tracking of all of our equipment and supplies. ⋖
- B Real-time, active identification of most (but not all) of our equipment and supplies. Ш
- C Recording locations of some of our equipment and supplies, with enough leadime to affect inventory decisions. O
- D Recording locations of some of our equipment and supplies, with too little lead-time to affect inventory decisions. Δ
- E We do not have any asset visibility ш

In our organization, asset visibility is used in the following areas: Pyramid Area: Asset Visibility

A - Inventory management, supply chain management, asset management, demand forecasting, budget planning, and acquisition decisions.

B - Inventory management and supply chain

Ш ပ

C - Inventory and financial management.

D - Distribution functions only. Δ

E - We do not use it in our organization.

The following best describes our organization's plans to develop enterprise-wide metrics to assess material asset visibility, both internally and from our customer's point of view: 90

Asset Visibility Pyramid Area: A - We have capabilities in place to measure the effectiveness and accuracy of our asset bisibility program.

B - Asset visibility meausres are part of our future process improvement requirements.

ш

C - We have not yet identified a need to measure asset visibility effectiveness.

ပ

D - Our asset visibility program does not need additional meansures of effectiveness. Δ

E - We do not have a material asset visibility program.

## LMI Logistics Maturity Evaluator

Functional integration is a stated goal of our logistics strategic plan

Functional Integration Pyramid Area: A - Strongly Agree ⋖

B - Partially Agree Ш

C - Partially Disagree ပ D - Strongly Disagree

Δ

E - Does Not Apply to Our Organization

ш

Our logistics processes and systems are: 92

Functional Integration Pyramid Area: A - Strongly integrated with operations, the customer and our supply chain partners ⋖

B - Strongly integrated with operations and our

В

C - Integrated with other logistics and finance processes and systems ပ

D - Integrated with other logistics processes Δ

ш

E - Our logistics processes and systems are not integrated

The following best describes our agency's logistics data standardization and integration:

Pyramid Area: Functional Integration

A - Data is standardized, captured one time and distributed to related users and systems.

≪ ⊠

- B Data is not standardized, captured one time and distributed to related users and
- C Data is integrated through manual intervention between systems.

0 0

- D Data is stored on individual "cuff systems"
- E Our data is not integrated.
- 94 Our logistics management and staff are aware of the roles and responsibilities of other organizations' logistics activities.

Pyramid Area: Functional Integration

- A A All personnel are cross-trained in several functions.
  - Idricuoris.

    B Managers and supervisors are trained in

а О О

- several areas of organizational responsibility.
  - C Only upper level managers need to be aware of other organization's responsibilities.
- D Only managers and supervisors are trained in areas outside our organization
- E Does Not Apply to Our Organization

### LMI Logistics Maturity Evaluator

75 The following best describes the relationship between logistics and operations in our agency:

Pyramid Area: Functional Integration

A - Logistics is an equal partner with operations in achieving our total organizational mission.

⋖

B - Management recognizes that operations cannot succeed without effective logistics support.

В

C - Logistics is one aspect of successful operations.

ပ

- D Operational needs must come before logistics support needs.
- E E Logistics is not part of our organization's mission.
- 96 In our organization, enterprise functional integration is measured

Pyramid Area: Functional Integration

A - Management assessment of enterprise performance metrics that relate to overall process performance, total cost and customer

satisfaction.

- B Specific metrics applicable to each logistics manager that collectively contribute to overall organizational integration.
- C Annual assessments by our managers who determine how much integrated effort is needed.
- D Random feedback from our primary
- E E Functional integration is not quantitatively measured.

97 In our organization, functional integration objectives are supported by:

Pyramid Area: Functional Integration

- A Procedures where more integrated functional areas are permitted to retain improvement savings related to achieving overall organizational objectives.
- B Increasing allocation of resources to functional elements that contribute significantly to a fully integrated process.
- C Giving some additional resources to organizational activities that are deemed important to greater integration.

ပ

D - Functional integration is not considered when allocating resources.

Ω

- E Functional integration has no relationship
- 98 Most major decisions concerning logistics are discussed at:

Pyramid Area: Functional Integration

- A Cross-functional team meetings that include operators (customers), logisticians and other supporting elements such as the CFO, CIO, and human resources.
- B Cross-functional team meetings that include operators (customers) and logisticians.
- C Cross-functional team meetings that include only logisticians.
- D The individual process level.

Ω

E - Does Not Apply to Our Organization

### LMI Logistics Maturity Evaluator

Our organization's formal quality improvement program can be characterized as:

Pyramid Area: Quality Improvement Program

A - Highly effective

⋖

- B Somewhat effective.
- C Minimally effective

ပ

- D Not Effective.
- E We don't have a quality program

- 100 Positive results of our logistics quality improvement program is: Pyranid Alea: Quality Improvement Program
- A A A priority of all our agency executives
- B A priority of only our logistics managers and executives
- C A priority of our directorate and division managers
- D A priority of the process owners
- E E We do not have a logisitos quality improvement program.

Our quality improvement program is widely known, understood and accepted at all levels of the organization.

Pyramid Area: Quality Improvement Program

- A A Strongly Agree
- B Partially Agree

ш

C - Partially Disagree

0 0

- D Strongly Disagree
- E Does Not Apply to Our Organization
- 102 The following best describes the state of our quality improvement system training program:

Pyramid Area: Quality Improvement Program

A - All personnel are trained

**∀** B

- B Managers and supervisors are trained
- C Only upper level managers

ပ

- D Only non managers and supervisors are trained
- E Does Not Apply to Our Organization

### LMI Logistics Maturity Evaluator

103 Our quality improvement system can be found:

Pyramid Area: Quality Improvement Program

- A A Integrated throughout all levels and processes in our logistics activities.
- B Not integrated, but separately exectured at all levels and processes in our logistics

М

- C In our most important logistics activities.
- D In only a few logisitcs activities.

△

E - We do not have a quality improvement system for logistics.

104 In our organization, resources are provided to promote greater product/service quality by:

Pyramid Area: Quality Improvement Program

- A Programming and budgeting resources directly for quality improvement actions and
- B Ensuring that all logistics organizations identify quality improvement requirements as part of their goals and objectives.

В

- C Working closely with the quality control office.
- D Building quality into our products/services.
- E E- Our organization is not responsible for funding product/service quality.

Quality improvement in logistics is part of our:

Pyramid Area: Quality Improvement Program

A - Corporate performance measurement program

B - Overall logistics performance measurement program

C - Individual directorate or division performance measurement program

ပ Δ

D - Process level reviews

E - Quality Improvements are not measured

Our organization has a process to standardize supplies, equipment and processes to reduce costs.

106

Pyramid Area: Cost Reduction

A - Strongly Agree

⋖ М

B - Partially Agree

C - Partially Disagree

ပ

D - Strongly Disagree Δ E - Does Not Apply to Our Organization

### LMI Logistics Maturity Evaluator

To control logistics costs, we use outputs from:

Pyramid Area: Cost Reduction

A - Both our logisites and finance systems

B - Only our finance systems

Ш ပ

C - Our local standalone cost system

D - Estimates made from point observations Δ

E - We do not manage by cost

ш

We use Activity Based Costing to manage: 108

Cost Reduction Pyramid Area: A - All logistics activities as an integrated cost ⋖

B - All logistics as independent costs ш

C - Only selected logistics activities

ပ

D - Only certain logistics processes Ω

E - We do not use Activity Based Costing

109 Reporting and assessing costs is an important part of our performance measures.

Pyramid Area: Cost Reduction

- A Strongly Agree
- B Partially Agree

ш

- C C Partially Disagree
- D Strongly Disagree

Δ

E - Does Not Apply to Our Organization

Our decisions in regard to organizing and staffing logistics activities are based primarily on best value use of resources.

Pyramid Area: Cost Reduction

A - Strongly Agree

**∀** B

- B Partially Agree
- C Partially Disagree

ပ

- D Strongly Disagree
- E Does Not Apply to Our Organization

### LMI Logistics Maturity Evaluator

111 In our organization, our philosophy about outsourcing is:

Pyramid Area: Oost Reduction

A - Outsource when there is a cost advantage, no operational risk, and the function is not a core competency

- core competency

  B Only when there is a cost advantage and a non-core competency
- C Always when there is a cost advantage regardless of risk and core competencies

О О Ш

- B Logistics core competencies will not be outsourced regardless of cost advantage
- E All logistics is outsourced as a matter of course.

The integration and streamlining of our business processes to reduce the overall cost of logistics support for such elements as maintenance, supply, distribution, and transportation is:

Pyramid Area: Cost Reduction

A - Part of our corporate strategic plan

⋖

- B Part of our logistics business plan
- C C Up to the various logistics directorates and divisions
- D Up to the indiviual process owners
- E Does Not Apply to Our Organization

Cost information for logistics process are:

Pyramid Area: Cost Reduction

- A Available from an integrated business systems and are available to all levels of management.
- B Available from several business systems and are available to all levels of management. Δ
  - C Available from our business systems but

ပ Ω

require special reports.

- D Not part of our business systems and are maintained off-line.
- E Not maintained at all.

Which statement best describes our organization's approach to Supplier Relationship Management: 114

Supplier Relationship Management Pyramid Area:

- A Our Agency has a clear vision of who its suppliers are and a strategy for developing business relationships with them to optimize supply chain performance. ⋖
- B Our Agency is familiar with the principles of SRM and has plans to adopt it. ω
- C Our Agency is satisfied with the support currently provided by suppliers and therefore does not need to adopt SRM.

ပ

- D Our Agency would like to adopt SRM but is unable to do so because of procurement regulations, funding, or personnel constraints. Δ
- E Our Agency does not consider SRM to be applicable to its operations.

# LMI Logistics Maturity Evaluator

The following best describes the state of Supplier Relationship Management (SRM) in our organization:

Pyramid Area: Supplier Relationship Managemen

- A Our staff is trained and knowledgeable, and engaged in applying SRM. ⋖
- B Our staff is trained and knowledgeable about how to apply SRM but only has the time to work on SRM on a limited basis.

Ш

C - Our agency relies extensively on contractors to apply SRM.

ပ

D - Our agency relies occasionally on contractors to apply SRM.

۵

E - Our agency does not engage in SRM.

ш

Our budget and program plan includes adequate personnel and funding to effectively and efficiently apply SRM: 116

Pyramid Area: Supplier Relationship Management

- A Strongly Agree ⋖
- B Partially Agree Ш
- C Partially Disagree ပ
- D Strongly Disagree Δ
- E Does Not Apply to Our Organization.

Which statement best describes the status of your organization's SRM technology or software?

Pyramid Area: Supplier Relationship Managemen

- A Our Agency understands and applies current state-of-the-art SRM technology, software and techniques to most of our operations. ⋖
- B Our Agency understands and applies current state-of-the-art SRM technology and techniques to a select few operations. Δ
- applies current state-of-the-art SRM technology, software or techniques to most of C - A support contractor understands and our operations.

ပ

technology, software or techniques to some of D - A support contractor understands and applies current state-of-the-art SRM

Δ

E - We have no significant technology system supporting our SRM efforts. ш

A-33

Which statement best describes the status of your organization's SRM processes? 118

Supplier Relationship Management Pyramid Area:

- A Our Agency's and our suppliers' work processes are stable and well understood by our SRM practitioners ⋖
- processes are undergoing changes that make it difficult to apply SRM at this time. B - Our Agency's and/or our suppliers' work ш
- C Our Agency can apply SRM to some but not all work processes.

ပ Δ

- processes are not well understood, making it difficult to decide where and how to apply D - Our Agency's and/or our suppliers' work
- E Our Agency and/or our customers do not expect to use SRM in our dealings with each other. ш

### LMI Logistics Maturity Evaluator

Which statement best describes SRM performance in your organization.

Supplier Relationship Managemen: Pyramid Area:

standards that are current and generally well A - We have SRM performance outcome understood and rigorously monitored.

⋖

standards that are current and generally well understood but are not always rigorously B - We have SRM performance outcome monitored.

В

C - We have SRM performance outcome standards that are not current or well understood.

ပ

- D We rely on contractors to manage SRM performance outcome standards. Δ
  - E We do not have SRM performance outcome standards. ш

A balanced scorecard is a significant part of our strategic plan. 120

Balanced Scorecard/Benchmarking Pyramid Area:

- A Strongly Agree ⋖
- ပ

B - Partially Agree

Ш

- C Partially Disagree
- D Strongly Disagree Δ
- E Does Not Apply to Our Organization

Our balanced score card includes:

Pyramid Area: Balanced Scorecard/Benchmarking

- A Performance, Cost, Knowledge Development and Customer satisfaction measures
- B Primarily performance and cost metrics Δ
- C Primarily cost and budget information

ပ

- D A number of well-documented metrics. Ω
- E Our organization does not use a balanced scorecard approach. ш

Our organization has an active benchmarking program with other government agencies or private businesses

Balanced Scorecard/Benchmarking Pyramid Area:

- A For more than 5 years
- D Done occasionally △
- E Our Organization does not use benchmarking.

122

B - For 3 to 5 years

Δ

C - For 1 to 2 years

ပ

## LMI Logistics Maturity Evaluator

The information source that we use to support our balanced score card is:

Pyramid Area: Balanced Scorecard/Benchmarking

- A A direct feed from the data systmes that we use for our day-to-day business processes. ⋖
- B From special reports from our business systems that we run periodically.

Ш ပ

- C Captured off-line from objective observations and reports from our business systems.
- D A collection of notional data. ۵
- E Does Not Apply to Our Organization

ш

Our executives are kept familiar with our balanced scorecard: 124

Balanced Scorecard/Benchmarking Pyramid Area:

- A With quarterly or semi-annual scheduled briefings and discussions. ⋖
- B With annual scheduled briefings and discussions. ш
- C Ad hoc requests. ပ
- D With rare reviews of our balanced score card. Δ
- E Does Not Apply to Our Organization ш

Resource allocation decisions are usually made based on the outcomes of our balanced scorecard assessments.

Pyramid Area: Balanced Scorecard/Benchmarking

A - Strongly Agree

⋖ ш ပ Ω

- B Partially Agree
- C Partially Disagree
- D Strongly Disagree
- E Does Not Apply to Our Organization
- The following best describes the use of benchmarking as a basis for decision making in our agency: 126

Balanced Scorecard/Benchmarking Pyramid Area: A - We use observations from our

⋖ ш

- benchinmarking partners
- B We use obervations from like organizations, but not formal benchmarking
- C We use widely accepted national trends

ပ Δ

- D We use notional data
- E We do not use benchmarking.

### LMI Logistics Maturity Evaluator

We have implemented a balanced scorecard measurement system in our organization that:

Pyramid Area: Balanced Scorecard/Benchmarking

A - Provides a range of performance metrics that management uses to measure overall organizational effectiveness.

⋖

that we use in measuring progress toward our own goals and objectives. B - Identifies several performance measures

В

C - Are good measures, but are not generally used to support management decisions.

ပ

- directly related to our process effectiveness. D - Includes some measures that are not Δ
- E Includes some measures that may be conflicting in purpose.

ш

Which statement best describes our organization's management approach to customer relationship management? 128

Customer Relationship Management Pyramid Area: A - Our Agency has done CRM research and has a clear vision of who its customers are and a strategy for meeting the customers ⋖

needs.

- B Our Agency is familiar with the principles of CRM and has plans to adopt it. В O
- C Our Agency, through experience, knows who its customers are and is already providing outstanding service therefore it does not need to adopt CRM.
- D Our Agency would like to adopt CRM but is unable to do so because of funding or personnel constraints. ۵
- E Our Agency does not consider CRM to be applicable to its operations.

The following best describes the state of Customer Relationship Management (CRM) in our organization:

Pyramid Area: Customer Relationship Management

- A Our staff is trained and knowledgeable, and engaged in applying CRM. ⋖
- B Our staff is trained and knowledgeable about how to apply CRM but only has the time to work on CRM on a limited basis.

Δ

- C Our agency relies extensively on contractors to apply CRM. ပ

Δ

D - Our agency relies occasionally on contractors to apply CRM.

E - Our agnecy does not engage in CRM.

Our budget and program plan includes adequate personnel and funding to effectively and efficiently apply CRM: 130

Customer Relationship Management Pyramid Area:

- A Strongly Agree ⋖
- B Partially Agree

Ш ပ

- C Partially Disagree
- D Strongly Disagree Ω
- E Does Not Apply to Our Organization.

## LMI Logistics Maturity Evaluator

Which statement best describes the status of your organization's application of CRM technology?

Pyramid Area: Customer Relationship Management

A - Our Agency understands and applies current state-of-the-art CRM technology and techniques to most of our operations.

⋖

B - Our Agency understands and applies current state-of-the-art CRM technology and techniques to a few of our operations.

В

C - A support contractor understands and applies current state-of-the-art CRM technology and techniques to most of our

ပ

- D The technology system supporting our CRM efforts is not current state-of-the-art. Δ
- E We generally don't relate CRM to technology applications

ш

Which statement best describes the status of your organization's CRM processes? 132

Customer Relationship Management Pyramid Area:

- A Our Agency's and our customers' work processes are stable and well understood by our CRM practitioners ⋖
- B Our Agency's and/or our customers' work processes are undergoing changes that make it difficult to apply CRM at this time. Ш
- C Our Agency can apply CRM to some but not all work processes. O
- D Our Agency's and/or our customers' work processes are not well understood, making it difficult to decide where and how to apply ۵
- E Our Agency and/or our customers do not desire to use CRM initiatives in our dealing with each other. ш

Which statement best describes CRM performance in your organization.

Customer Relationship Management Pyramid Area:

standards that are current and generally well A - We have CRM performance outcome understood and rigorously monitored.

⋖

standards that are current and generally well understood but are not usually rigorously B - We have CRM performance outcome monitored.

М

C - We have CRM performance outcome standards that are not current or well

ပ

D - We rely on contractors to manage

Ω

performance outcome standards.

- E We do not have CRM performance outcome standards. ш
- For our organization, supply chain management means: 134

A-37

Supply Chain Integration Pyramid Area:

- planning the acquisition of customer-driven requirements for material and services and ends with the delivery of material to the operational customer. A - An integrated process that begins with
- B A methodology for acquiring material and supplying that material to our customers.

മ

- transportation functions to satisfy customer C - Integration of the distribution and O
- D A new approach to improving material Ω
- E We do not use that term in our organization

# LMI Logistics Maturity Evaluator

The implementation of supply chain management is part of our strategic plan.

Pyramid Area: Supply Chain Integration

- A Strongly Agree ⋖
- B Partially Agree

Ш

- C Partially Disagree ပ
- D Strongly Disagree

Δ

- E Does Not Apply to Our Organization ш
- Our organization's approach to supply chain management implementation is: 136

Pyramid Area: Supply Chain Integration

- A Assign an integrated team representing all affected sub-organizations to accomplish implementation. ⋖
- B Assign supply chain management implementation to a lead organization to accomplish implementation. В
- C Select an expert contractor to support our implementation effort. ပ
- D Give each logistics organization authority to implement supply chain management to meet its own requirements. Δ
- E The supply chain management concept does not apply to our logistics process. ш

Which statement best describes supply chain management training in your organization.

Pyramid Area: Supply Chain Integration

A - Most principal managers and key employees have received some formalized supply chain management training.

⋖

provide supply chain management training to executives and employees. B - Our organization has initiated or plans to

М

familiarize themselves with supply chain C - Managers and employees need to management concepts and practices.

ပ

D - Each organizational element is responsible for ensuring employees are trained in supply chain management.

Δ

E - Supply chain management training is not required in our organization.

ш

Our organization's approach to supply chain metrics is: 138

A-38

Supply Chain Integration Pyramid Area:

- A We have developed organization-wide supply chain metrics focusing on performance, cost and customer satisfaction. ⋖
- B We plan to implement supply chain metrics to measure the effectiveness of our overall supply chain. മ
- logistics process is charged with achieving its C - Each organization responsible for a assigned metrics targets. ပ
- D Our current logistics metrics satisfy our managers' and stakeholders' needs. Δ
- E We have not established formal metrics for our supply chain processes.

#### LMI Logistics Maturity Evaluator

The following best describes our organization's budgeting approach to implementing supply chain management:

Pyramid Area: Supply Chain Integration

- A Our cuttent and projected budget plan fully funds a comprehensive supply chain managemtn implementation program. ⋖
- B Our current and projected budget plan funds some important aspects of supply chain management.

В

C - We have som proposed supply chain management initatives, but they are not fully funded.

ပ

- D Our organization has not recognized a need to fund supply chain management Δ
- E Supply chain management does not apply to our organization. ш
- Our organization's approach to implementing or improving our supply chain management process is best described as: 140

Supply Chain Integration Pyramid Area:

- A Using a comprehensive process modeling and assessment approach to identify our processes, current/best practices and related metrics. ⋖
- B Pursuing a series of process improvement initiatives. В
- propose needed process improvements. C - Tasking an integration contractor to O
- D Upgrading our automated systems with software that incorporates better business ۵
- E Each organizational element is working to improve its own business processes. ш

41 Implementing supply chain management in our organization is a matter of:

Pyramid Area: Supply Chain Integration

- A A Determining basic performance and process requirements and matching them to government or private sector procedural and tecnological solutions.
- B Determining basic performance and process requirements and engineering our own solutions.

Ш

C - Determining process requirements only.

O O

- D Acquiring supply chain management
- E Does Not Apply to Our Organization
- Our organization primarily uses the following approach to implementation of technology solutions in areas such as supply chain management:

A-39

Pyramid Area: Supply Chain Integration

- A A Technology applications are not implemented until a credible business case is documented and approved.
- B We have in place a technology strategy to guide investments based on supply chain process improvement objectives.

ш

 C - Generally, we adopt technologies that have been accepted in other government organizations.

ပ

D - Our organization uses contractors to advise us on assessment and selection of applicable technologies.

Δ

E E - We try to implement new technologies as they become available.

## LMI Logistics Maturity Evaluator

Which statement best describes our organization's approach to strategic sourcing:

Pyramid Area: Strategic Sourcing

- A Our Agency has a clear vision of its spending patterns with each major supplier and a strategy for using the information to forge win/win business relationships with the suppliers.
- B Our Agency is familiar with the principles of strategic sourcing and has plans to adopt it.

  C Our Agency is satisfied with the support

currently provided by suppliers and therefore does not need to adopt strategic sourcing.

- D Our Agency would like to adopt strategic sourcing but is unable to do so because of procurement regulations, funding, or personnel constraints.
- E Our Agency does not consider strategic sourcing to be applicable to its operations.

ш

144 The following best describes the state of strategic sourcing in our organization:

Pyramid Area: Strategic Sourcing

- A A Our staff is trained, knowledgeable, and engaged in applying strategic sourcing.
- B Our staff is trained and knowledgeable about how to apply strategic sourcing but only has the time to work on strategic sourcing on a limited basis.
- C Our agency relies on contractors who are exclusively managing our strategic sourcing efforts.
- D Our agency relies on contractors who occasionally apply strategic sourcing
- approaches to material acquisition.

  E Our agency is using personnel who do not have or use any training on strategic sourcing.

Our budget and program plan includes adequate personnel and funding to effectively and efficiently apply strategic sourcing: 145

Pyramid Area: Strategic Sourcing

A - Strongly Agree

⋖ ш ပ Δ

B - Partially Agree

C - Partially Disagree

D - Strongly Disagree

E - Does Not Apply to Our Organization. ш

The following best describes the status of our organization's use of technology to implement strategic sourcing: 146

Strategic Sourcing Pyramid Area:

A-40

current state-of-the-art strategic sourcing technology and techniques to most of our A - Our Agency understands and applies operations ⋖

B - Our Agency understands and applies current state-of-the-art strategic sourcing technology and techniques to a few of our operations

Ш

ပ

sourcing technology and techniques to most of C - A support contractor understands and applies current state-of-the-art strategic our operations.

D - The technology system supporting our strategic sourcing efforts is not current state-Δ

E - We do not use any significant technology to support strategic sourcing. ш

## LMI Logistics Maturity Evaluator

The following best describes the status of our organization's strategic sourcing processes:

Pyramid Area: Strategic Sourcing

A - Our Agency's and our suppliers' work processes are stable and well understood by our strategic sourcing practitioners

⋖

B - Our Agency can apply strategic sourcing to some but not all acquisition work processes.

В O

C - Our Agency's and/or our suppliers' work processes are undergoing changes that make it difficult to apply strategic sourcing at this

D - Our Agency's and/or our suppliers' work processes are not well understood, making it difficult to decide where and how to apply strategic sourcing. Δ

E - Neither we nor our customers know whether strategic sourcing is applicable to our ш

The following best describes strategic sourcing performance in our organization: 148

Strategic Sourcing Pyramid Area: A - We have strategic sourcing performance outcome standards that are current and generally well understood and rigorously monitored. ⋖

outcome standards that are current and generally well understood but are not usually B - We have strategic sourcing performance rigorously monitored.

Ш

C - We have strategic sourcing performance outcome standards that are not current or well understood. ပ

D - We rely primarily on contractors to manage strategic sourcing performance Δ

outcome standards. ш

E - We do not have strategic sourcing performance outcome standards.

1 believe Performance Based Logistics is:

Pyramid Area: Performance Based Logistics

- A A management strategy that uses documented measures, agreements and integration managers to achieve optimum levels of customer satisfaction.
- B An approach to improve life-cycle support of end items and equipment.
- C A way to eliminate non-value activity in the logistics process.
- D Another way to accomplish outsourcing.
- E I don't really know.
- 150 Which statement best describes our organization's approach to

performance based logistics:

Performance Based Logistics

Pyramid Area:

A-41

- A Our Agency has adopted a vision and strategy for using PBL agreements or contracts covering both services and products provided to the Agency.
- B Our Agency has adopted a vision and strategy for using PBL agreements or contracts covering products provided to the Agency.
  - C Our Agency has adopted a vision and strategy for using PBL agreements or contracts covering services provided to the Agency.
- D Our Agency is considering using PBL agreements or contracts covering either or both services and products provided to the Agency
- E Our Agency does not plan to use PBL agreements or contracts in the near future.

## LMI Logistics Maturity Evaluator

151 The following best describes the state of performance based logistics in our organization:

Pyramid Area: Performance Based Logistics

- A Our staff is a full-time staff trained, knowledgeable, and engaged in applying PBL.

  B Our staff is trained and knowledgeable
- B Our staff is trained and knowledgeable about how to apply PBL but only works on PBL on periodic basis.
- C Our agency relies extensively on contractors to apply PBL.
- D Our agency relies periodically on contractors to apply PBL.

Δ

E - Our agency does not engage in PBL.

ш

152 Our budget and program plan includes adequate personnel and funding to effectively and efficiently apply PBL:

Pyramid Area: Performance Based Logistics

- A A Strongly Agree
- B Partially Agree
- C Partially Disagree
- D Strongly Disagree
- E Does Not Apply to Our Organization.

ш

The following best describes the status of our organization's use of PBL-related technology:

Pyramid Area: Performance Based Logistics

- A Our Agency understands and applies current state-of-the-art PBL technology, software and techniques to most of our operations. ⋖
- B Our Agency understands and applies current state-of-the-art PBL technology, software and techniques to some of our operations.

Ш

technology, software and techniques to most C - A support contractor understands and applies current state-of-the-art PBL of our operations.

O

D - The technology system supporting our PBL efforts is not current state-of-the-art.

Δ

E - We have no plans to adopt new technology specifically for support of PBL implementation ш

A-42

Which statement best describes PBL performance in your 154

Performance Based Logistics organization. Pyramid Area:

- A We have documented PBL performance metrics that focus on customer-oriented performance objectives and on reducing logistics costs. ⋖
- are current and generally well understood and B - We have PBL performance metrics that rigorously monitored ш
- C We have PBL performance metrics that are not current or well understood.

ပ

- D We rely on contractors to meet agreed-to PBL performance objectives. Δ
- E We do not have PBL performance metrics.

## LMI Logistics Maturity Evaluator

In our organization, the desired approach for accessing and exchanging logistics information is best described as:

Pyramid Area: Enterprise Integration

A - We plan to use common information repositories or data bases to provide required information to all authorized users.

⋖

В

- information data exchange standards to process information transactions among B - Our intent is to adopt commercial different automated systems.
- standard transaction formats such as FEDSTRIP to exchange information among C - We will continue to use government different systems and organizations. ပ
- information is to prepare printed reports and disseminate these to using organizations. D - Our normal method to exchange Δ
- E We use messages, e-mail and telephones to exchange logistics and related information. ш

I would characterize our process for providing logistics information to managers and employees as: 156

Enterprise Integration Pyramid Area:

- A The ability of Agency personnel to obtain required logistics information is satisfactory. ⋖
- B Information availability in our organization is generally timely and accurate. М
- C Each organization maintains the logistics information needed for its own operations. O
- D Managers and employees can request required logistics and related information on an as-needed basis. ۵
  - ш
- E The ability of Agency personnel to obtain required logistics information is unsatisfactory.

157 Our organization's current status toward developing an integrated logistics enterprise architecture is:

Pyramid Area: Enterprise Integration

A - We have documented a fully developed logistics enterprise architecture and use it as a business process reengineering tool.

⋖

B - We are currently developing an integrated logistics enterprise architecture.

**В** 

- C Each organization within our Agency is responsible for developing its own enterprise and technical architecture products.
- D We have not addressed the issue of a logistics enterprise architecture.

о ш

- E A logistics enterprise architecture is not required for our organization.
- 158 Our approach to technical modernization and integration of our automated logistics processes is best described as:

Pyramid Area: Enterprise Integration

A-43

A - We are pursuing development of an integrated data environment using commercial enterprise resources planning (ERP) software as needed.

⋖

B - We are concentrating on improving our logistics business processes, minimizing development of totally new automated systems.

മ

C - We are developing our own modem automated systems capabilities or upgrading existing government owned software and/or hardware.

ပ

D - Our automated data systems are sufficiently modern to support our Agency's

Δ

E E - We have not addressed process or systems modernization in our organization.

## LMI Logistics Maturity Evaluator

59 Our organization measures progress toward improving logistics based on:

Pyramid Area: Enterprise Integration

- A Our most significant logistics business goals based on customer approved metrics encompassing overall process performance, cost, and customer satisfaction
- B B Our business goals and customer satisfaction
- C Our business goals and process performance

ပ

- D Our overall process performance and cost
- E E Cost
- Within our organization, funding of a fully integrated logistics process and information exchange environment is best described as:

Pyramid Area: Enterprise Integration

A - We have funded business processes and technical enablers to achieve this environment

in the foreseeable future.

B - Several key process improvement capabilities such as full asset visibility and integrated data bases have been funded.

В

- C C Technical enablers such as bar codes, radio frequency tags or electronic data interchange capabilities have been funded.
- D Enterprise integration requirements in our organization have been recognized, but have
  - organization have been recognized, but hav not yet been significantly funded.
- E Cross-functional or organizational integration of logistics functions has not been addressed in our organization.

ш

I would characterize logistics strategic planning in our organization as:

Pyramid Area: Strategic Planning & Execution

A - We have a good logistics strategic plan and are executing it reasonably consistently and on schedule.

⋖

B - We have a good logistics strategic plan, but we have not been able to execute it effectively.

Ш

C - Our plan has not been well-publicized in our organization.

0 0

- D We have a plan, but assignments have not been made or followed up to accomplish
- E We have no plan.
- 162 I would characterize our Agency management's support of our logistics strategic plan as:

A-44

Pyramid Area: Strategic Planning & Execution

- A Management is fully committed to our strategic plan's content and participates in its execution.
- B Management supports our strategic plan objectives, but they are too involved in day-to-day issues to focus on a long range perspective.
- C C Our Logistics Strategic Plan has not been updated in recent years.
- D D Management officials do not appear to be interested in strategic planning.
- E Strategic planning just won't work in our organization.

## LMI Logistics Maturity Evaluator

3 Responsibility for strategic planning in our organization:

Pyramid Area: Strategic Planning & Execution

A - Is led by senior management with full participation of key managers and employees.

C B >

- B Is accomplished by an Integrated Product Team of key employees.
- C Is the responsibility of our strategic planning organization.
  - D Is everyone's responsibility.

Δ

E - Not sure who is responsible.

ш

Our Logistics Strategic Plan is structured in accordance with:

164

Pyramid Area: Strategic Planning & Execution

- A A The Government Performance and Results Act (GPRA) model.
- B Models of strategic plans from other government office

o m

- C Generally accepted commercial standards.
- D We developed our plan tailored to our needs.
- E We don't have a Plan.

ш

I believe the probability that our Logistics Strategic Plan will be largely executed is:

Pyramid Area: Strategic Planning & Execution

- A 100%
- B Most milestones will be achieved in the time specified in the plan. ш
- C Most milestones will be achieved, but it will take longer than planned.

ပ △

D - A few milestones will be achieved.

- E As written, our plan is not executable in our organization.

Adequate resourcing is key to a successfully executed strategic plan. Our plan is:

166

Strategic Planning & Execution

Pyramid Area:

- A Fully resourced in terms of personnel and funding. ⋖
- B Some elements of our plan are adequately resourced and some are not.

ω ပ

- C At the right time, resources will be made available for the meaningful parts of our plan.

- D Our organization does not generally link plans to resources. ۵
- E There are no significant resources available to execute our Logistics Strategic Plan.

## LMI Logistics Maturity Evaluator

The relationship between our operations and logistics:

Pyramid Area: Organizational Focus

- A Logistics is a peer with operations
- B Logistics is subordinate to operations

Ш ပ Δ

- C Logistics is subordinate to hardware program offices
- D Logistics is a 3rd tier support element
- E We don't have an office assigned with the mission of logistics

ш

The Chief of Logistics for our Agency is 168

Organizational Focus Pyramid Area:

- A Full time executive level position ⋖
- B Full time upper management 13-15 ш
- C Full time middle management 9-12 ပ
- D Part time manager Δ
- E We don't have a chief of logistics

How are logistics activities organized under the chief of logistics Pyramid Area: Organizational Focus

A - All logistics organizations report to the chief of logistics

B - All operational logistics support activities report to the chief of logistics

ш

C - Only some of the operational support logistics activities report to the chief of logistics

ပ Δ

D - Only non-operational support logistics activities report to the chief of logistics

E - Does not apply to our organization

Generally, the minimum experience for the management staff of our logistics departments is 170

Organizational Focus Pyramid Area: A - Career logistics professionals

B - 10 or more years experience in logistics

Ш ပ

C - 5-10 years experience in logistics

D - 1 - 5 years experience in logistics Ω

E - No logistics experience

## LMI Logistics Maturity Evaluator

The approximate annual staff turnover in our logistics activities is: Pyramid Area: Organizational Focus

A - less than 5%

B - 5-10 %

Ш

C -11-15%

ပ

D - greater than 15% Ω

E - I don't know ш Does your logistics staffing meet the needs of your mission? 172

Organizational Focus Pyramid Area:

A - Yes

⋖

B - No, we could use 10% more staff ш C - No, we could use 25% more staff

ပ

D - No, we could use 50% more staff Δ

E - I don't know

Our human resource support system is integrated with our operational logistics systems by: 173

Pyramid Area: Organizational Focus

A - Real time direct interface

⋖

- B Periodic updates through a direct interface ш
- C When requested, but not a direct interface ပ
- D Manually Ω
- E We don't use human resource data in our operational logistics system ш

## Appendix B Letter of Understanding

The attached letter of understanding (LOU) between LMI and an agency's management formalizes the relationship and responsibilities of the participating parties.



[Click **here** and type date]

[Click here and type recipient's address]

Dear [Click **here** and type recipient's name]:

The purpose of this letter of understanding is to describe how LMI will conduct the Logistics Maturity Evaluation (LME) of selected Department of Homeland Security (DHS) agencies. Below, we outline the evaluation approach and our expectations for the participants. Participation is voluntary and at no cost to DHS or the participating agencies. This effort is funded wholly by LMI's independent research and development funds.

## Nondisclosure

The information gathered from the Logistics Maturity Assessment Questionnaire is intended solely for the purpose of aiding in the design of the Logistics Maturity Evaluation. Survey responses will be kept confidential, will only be shared with LMI personnel with a need to know, and will not be shared with any non-LMI party. LMI will not disclose the source of the survey responses.

## LME Approach

## Background

An objective maturity evaluation of organizational logistics can offer distinct advantages to managers trying to achieve higher service levels from their logistics processes. The appraisal can inform operational decision-making, focus management emphasis, and align organizational resources. LMI developed the LME to provide executives with an enterprise view of how their logistics operations compare to a set of generally accepted improvement practices. The LME is based on research of current maturity evaluation methods and logistics best practices. The LME is a structured, high-level diagnostic tool which is used to assess a Government organization's logistics capability and identify target areas for performance improvement and *reduced support costs*. LME can particularly benefit government organizations with equipment-dependent, readiness-oriented, logistics-reliant operations.

The LME considers a mix of organizational components that serve as a logistics framework:

- Vision and strategies
- Organization and workforce

- Resources
- Technology enablers
- Logistics processes
- Performance

Individual logistics components can be assessed against a maturity scale to identify stages of development and improvement practices needed.

## Methodology

- 1. LMI will present a briefing describing the LME assessment process.
- 2. LMI will administer a preliminary survey to gather key organizational characteristics, including:
- key missions and activities
- mission critical equipment
- logistics organization structure(s)
- agency budget
- logistics activity funding
- 3. Based on evaluation of this profile, LMI will work with the agency to identify five logisticians, representing the organization's five most significant logistics activities (e.g. mission critical logistics providers or high dollar programs), to attend a one-day session to complete the LME survey.

## Scoring and Analysis

LMI will compile and analyze survey responses to determine the status of improvement practices within the logistics components, quantify the organization's logistics maturity, and create an organizational Logistics Maturity Evaluation. Results will be compared with those from similar agencies to derive key conclusions and suggest next steps.

## LMI Responsibilities

## LMI will

- administer the LME to the agencies in this agreement at no cost.
- provide the evaluators, materials and information systems necessary to conduct this evaluation.
- provide a complete debriefing of the results of the evaluation to the participating agency.

## Agency's Name

## Agency will

- provide the pre-survey information to the LME evaluators.
- provide at least five management representatives from the most significant logistics activities to take part in the evaluation.

If you have any questions about the LME during the evaluation or want to discuss the results, please contact Jeff Colaianni at (703) 917 7548, jcolaian@lmi.org.

We appreciate the opportunity to help DHS and its agencies to optimize their logistics programs.

Sincerely,

Jeffery P. Bennett Operating Vice President

## Appendix C Initial LME Survey

Agency:		
Interviewee:		
Office:		
<b>Position:</b>		
Grade:		

- 1. What is the annual budget in your agency?
- 2. Is there a specific budget for logistics? What is the annual budget for logistics?
- 3. Who at the executive level is in charge of logistics?
- 4. What general types and number of equipment do you support?

	0–100 items	100–500 items	500–1,000 items	>1,000 items
Vehicles				
Boats				
Aircraft				
Major inspection equipment				
Sensors				
Radio equipment (C4)				
Maintenance significant weapons				
IT equipment				
Other				

- 5. Do you have an agency-wide logistics office?
  - Who does this office report to?
  - What mission critical equipments does it support?
  - How many staff does it have?
  - What is the approximate annual budget?
  - Are they following major logistics functions outsourced? (Y/N)
    - o Supply
    - Maintenance
    - o Distribution and transportation
- 6. Is logistics performed in other offices?

Office	Outsourced (Y/N)	Equipment supported	Number of staff	Approximate annual budget	Supply (Y/N)	Maintenance (Y/N)	Distribution and transportation (Y/N)

If you have any questions contact Jeff Colaianni at (703) 917-7548 or jcolaian@lmi.org.

## REPORT DOCUMENTATION PAGE

Form Approved OMB No. 0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing this collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to Department of Defense, Washington Headquarters Services, Directorate for Information Operations and Reports (0704-0188), 1215 Jefferson Davis Highway, Suite 1204, Aflington, VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number. PLEASE DO NOT RETURN YOUR FORM TO THE ABOVE ADDRESS.

1. REPORT DATE (MM-YYYY)	2. REPORT TYPE	3. DATES COVERED (From - To)
04-2006	Final	
4. TITLE AND SUBTITLE		5a. CONTRACT NUMBER
Logistics Maturity Evaluat	or	
	5b. GRANT NUMBER	
		5c. PROGRAM ELEMENT NUMBER
		SC. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)		5d. PROJECT NUMBER
Reay, James H; Author		
Colaianni, A. Jeffrey; Au	thor	5e. TASK NUMBER
Harleston, Evelyn F; Autho	r	
Maletic, Amy ; Author		5f. WORK UNIT NUMBER
Marcus, John G; Author		
7. PERFORMING ORGANIZATION NAME(	S) AND ADDRESS(ES)	8. PERFORMING ORGANIZATION REPORT
		NUMBER
LMI		LMI-IR509R1
2000 Corporate Ridge		
McLean, VA 22102-7805		
A OPONOODING / MONITODING A OFNO	(NAME(O) AND ADDDEGO(EO)	40. OPONOOP/MONITORIO AOPONIVAVO
9. SPONSORING / MONITORING AGENCY	NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
LMI		
2000 Corporate Ridge		
McLean, VA 22102		11. SPONSOR/MONITOR'S REPORT
		NUMBER(S)

## 12. DISTRIBUTION / AVAILABILITY STATEMENT

A Approved for public release; distribution is unlimited.

## 13. SUPPLEMENTARY NOTES

## 14. ABSTRACT

LMI wishes to help government logistics managers determine the current state of their logistics processes, prioritize resource application, and identify future direction. To do so, we embarked on a research effort to develop a logistics maturity evaluator (LME). By accomplishing this independent research and development task, we hope to develop LMI's analytical capability to provide a structured high-level assessment of federal agencies' logistics status, progress, and proficiency and help agency managers target areas for improving performance and reducing support costs. The LME borrows heavily from the capability maturity model concept being applied in many organizations to meet management's need for an unbiased assessment tool. Our intention is to develop a repeatable system that gives logistics managers an objective comparison of the present status of their agencies' business processes and technologies for delivering goods and services. By applying the LME to logistics organizations, government managers will be able to determine the current level of their logistics processes in terms of modernization and implementation of improvements and technologies; identify additional process improvements that may be applicable to their organizations; and, identify likely areas for focusing business process reengineering initiatives to maximize return on investment, with a reasonable expectation of successful implementation given the organization's current level of development.

## 15. SUBJECT TERMS

logistics maturity evaluator; LME; capability maturity model; CMM; organizational maturity level; integrated logistics

16. SECURITY CLASSIFICATION OF:		17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON Nancy E. Handy	
a. REPORT UNCLASSIFIED	b. ABSTRACT UNCLASSIFIED	c.THIS PAGE UNCLASSIFIED	Unclassified Unlimited	90	19b. TELEPHONE NUMBER (include area code) 703-917-7249